

**GUIDANCE FOR LAND-USE PLANNING, SITING AND RELATED SAFETY ASPECTS OF  
HAZARDOUS ACTIVITIES**

**A GUIDANCE FOR PUBLIC ADMINISTRATION AND PRACTITIONERS**

**DRAFT VERSION 1**

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# PART A

## LEGAL AND POLICY GUIDANCE

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# I Introduction

## 1.1 Background

Industry contributes to the well-being of the people by providing a wide range of materials, products, infrastructures and services to all sectors of the economy. However, as in the case of chemical industry, this is not without risk as the hazardous materials used and/or the complexity of the processes and activities involved make that there is always the potential of an accident with adverse human, environmental and economic impacts. This raises the question how these two separate areas of interest, industrial development and human as well as environmental protection can be merged to prevent and mitigate the adverse impacts of hazardous activities on the people, environment and heritage, while ensuring countries' sustainable development. To achieve this requires addressing aspects on improving safety at the hazardous plant, deciding on the siting of hazardous activities<sup>1</sup> and planning the use of land around these establishments.

The issue becomes more complicated particularly when the consequences of accidents occurred at hazardous facilities, located either nearby or far from the transboundary zones, have far-reaching transboundary effects. Well-known examples of transboundary disasters are the accidents occurred at the Sandoz storehouse in Switzerland (1986) and Ajka aluminium refinery in Hungary (2010)<sup>2</sup>.

These and other accidents of the same dimension as the two described above played a relevant role in taking steps towards improving international policies to prevent such accidents and protect the environment at the international level, including through efforts in the framework of the United Nations. These new international standards (under the form of Directives, Conventions and Protocols) also led the countries to further developing and strengthening their national environmental legislation and capabilities to address risk/safety management at the side from both Authorities and operators to prevent such accidents and mitigate their consequences to the public and the environment. Furthermore, these standards became the cornerstone of the established multilateral environmental agreements on transboundary environmental issues. These negative transboundary events also highlighted the importance of cooperation and collaboration between the countries as well as the public participation to address hazardous activities<sup>1</sup> which are likely to cause effects on the people, environment and heritage.

There are several legal instruments established under the United Nations Economic Commission for Europe (UNECE) including provisions that are binding upon States that have become Parties, which means that they have agreed to be bound by them. By negotiating these legal instruments, States strive to set international environmental regulatory frameworks for (1) preventing future industrial accidents and mitigating its transboundary effects, (2) assessing the effects of certain plans and programmes on the environment, (3) ensuring international co-cooperation in assessing and managing environmental impacts of proposed activities in a transboundary context and (4) granting the public opportunities to participate in the decision-making and to access to information and justice. These UNECE instruments are namely

- Convention on the Transboundary Effects of Industrial Accidents (Industrial Accidents Convention): is designed to prevent and reduce industrial accidents and mitigate its effects as well as to promote active international cooperation between countries, before, during and after an industrial accident.

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<sup>1</sup> In accordance with article 1, subparagraph (b), of the Industrial Accidents Convention, "hazardous activity" means any activity in which one or more hazardous substances are present or may be present in quantities at or in excess of the threshold quantities listed in annex I of that Convention and which is capable of causing transboundary effects.

<sup>2</sup> In this guidance, borders refer to international border only (and not internal borders due to existence of more than one legal/administrative system such as Land in Germany, Territories in Australia or States in the USA).

- Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention): offers a legal framework to ensure international co-cooperation in assessing and managing environmental impacts of proposed activities in a transboundary context;
- Protocol on Strategic Environmental Assessment (Protocol on SEA): ensure that Parties carry out strategic environmental assessment procedures so as to integrate, at the earliest stages, environmental, including health, considerations and public concerns into their plans and programmes, and to the extent possible also into policies and legislation.
- Convention on the Protection and Use of the Transboundary Watercourses and International Lakes: ensures the prevention, control and reduction of transboundary impacts of water pollution, including through contingency planning.
- Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention): ensures that people access easily information, participate effectively in decision-making in environmental matters and to seek justice if their rights were violated.

Furthermore, a Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters has been negotiated under the Industrial Accidents and Water Conventions. It entitles individuals affected by the transboundary impact of industrial accidents on international watercourses to legal claims for adequate and prompt compensation. Contrary to the above-listed instruments, the Protocol is not in force.

Provisions on safety, land-use planning and siting of hazardous activities can be found under the above treaties and in particular under the Industrial Accidents Convention, and the Protocol on SEA. The latter supplemented the Espoo Convention. However, the practical implementation of these provisions encounters challenges that are common for the implementation of internationally agreed texts, such as the general/framework nature of the obligations, different approaches for the interpretation and implementation or enforcement. The legal tradition, culture as well as the economic state of a country also define the way it will implement the general obligations arising from the treaty. In addition, there can be specific concerns relating to sovereignty or disclosure of politically sensitive information. Therefore, it is important to clarify the legal requirements of both the Industrial Accidents Convention and Protocol on SEA, highlighting the synergies between these two instruments and illustrating good practice to support them in implementing the provisions related to safety, land-use planning and siting of hazardous activities.

At its eighth meeting (Geneva, 3–5 December 2014), the Conference of the Parties to the Industrial Accidents Convention, has agreed to prepare a guidance, further to the sharing of good practices on safety in land-use planning and siting, in order to:

- (a) Clarify the link between the general provisions of the Convention in article 3, paragraph 1, and the land-use planning/siting procedures in article 7 of the Convention;
- (b) Explain how the notion of land-use plans and programmes used in other relevant international multilateral environmental agreements (MEAs) and legal instruments applied to the Convention's provisions on the siting of hazardous activities;
- (c) Align the practice under the Industrial Accidents Convention with the provisions of the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) and the Seveso III Directive.

It requested the Working Group on the Development of the Convention (Working Group on Development) to prepare and review, on the basis of a draft drawn up with external expertise, a guidance document on safety and land-use planning (ECE/CP. TEIA/30, para 45). The preparation of guidance and the sharing of good practice on safety and land-use planning, joint with the Protocol on SEA and the UNECE Committee on Housing and Land-

Management, have been included in the 2015-2016 workplan of the Industrial Accidents Convention, which was adopted by the Conference of the Parties at its eighth meeting (ECE/CP. TEIA /30, annex II).

Further to a proposal from the secretariat of the Industrial Accidents Convention to promote synergies between the application of the Convention and the Protocol on SEA, the Working Group on Environmental Impact Assessment and Strategic Environmental Assessment (Working Group on EIA and SEA), at its fourth meeting (Geneva, 26–28 May 2015), agreed to include the development of the guidance document on safety and land-use planning in its workplan, as a joint activity with the Industrial Accidents Convention (ECE/MP.EIA/WG.2/2015/2, paras. 33–34).

The Working Group on Development at its sixth then agreed on the main objectives of the guidance (see Section 1.2 below, ECE/CP. TEIA /WG.1/2015/11, paras. 6-7, ECE/CP. TEIA /WG.1/2015/11 and ECE/CP. TEIA /2015/7, para. 34).

The Conference of the Parties to the Industrial Accidents Convention asked for the document to be ready for possible adoption at its ninth or, alternatively, tenth meeting. The Meeting of the Parties to the Protocol on SEA have requested that the document be finalized by end of 2016 so that it is submitted for adoption by the seventh session of the Meeting of the parties in June 2017. The European Investment Bank is the lead organization for the preparation of the guidance document, through an in-kind contribution to its development by consultants.

## **1.2 Goal and objectives**

The main objective of the Guidance is to assist the Parties with the implementation of the Industrial Accidents Convention, the Espoo Convention and the Protocol on SEA in clarifying the legal requirements of these instrument and address practical implementation aspects with regard to land-use planning and safety related aspects to enable Parties to apply their respective provisions effectively, in accordance with the existing good practice, and in a mutually consistent and complementary manner.

The Guidance does so by presenting experiences and good practices examples on, land-use planning, siting of hazardous activities and safety related aspects, in a transboundary context, and presenting technical information important for decision-makers. Moreover, the Guidance includes technical background information on the risks and possible consequences of industrial accidents arising from hazardous activities; as it is of crucial importance that such information be taken into account in land-use planning and the determination of appropriate safety criteria and standards. This background information should also assist Parties in determining whether a land-use plan or programme is likely to have significant environmental, including health, impacts, and therefore be subject to the Protocol on SEA (screening), as well as in the determination of the scope of the assessment (scoping).

This Guidance is to support Parties' public authorities and practitioners who are involved in the implementation and/or decision-making of issues related with preventing and managing the occurrence of transboundary accidents and minimizing their consequences for the public, environment and other cultural heritage elements. This might provide in further developing their national legislation in compliance with the Industrial Accidents and Espoo Conventions and Protocol on SEA and to streamline their application throughout the region.

In order to achieve these objectives, the Guidance document addresses the following aspects of land-use planning and safety related aspects:

- (a) Decision-making on the siting of hazardous activities and their significant modifications and developments in areas that could be affected by the transboundary effects of an industrial accident, including the relevant processes and a description of the elements and criteria to be taken into account;
- (b) Clarification of the linkages between the general provisions of the Industrial Accidents Convention in article 3, paragraph 1, and land-use planning procedures in article 7;

- (c) Strategic environmental assessment (SEA) requirements and procedures, including consultation of relevant authorities and public participation, as they apply to land-use planning with regard to the siting and significant modifications of hazardous activities.

Further to promoting synergies between the Industrial Accidents Convention and the Protocol on SEA as regards land-use policies, plans and programmes and the siting of hazardous activities as well as significant modifications to them in a transboundary setting, the Guidance document takes into consideration the following other relevant provisions, guidelines and recommendations:

- (a) Provisions of the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention) and the European Union (EU) Seveso III Directive, with regard to public information and participation in the development of land-use plans and policies;
- (b) Provisions of the Espoo Convention, with regard to environmental impact assessment (EIA) of relevant planned industrial activities that are likely to cause a significant adverse transboundary impact;
- (c) EU Directives on EIA and SEA;
- (d) Linkages with principles and guidelines to land management, as developed under the ECE Committee on Housing and Land Management.
- (e) Conclusions of the seminar on land-use planning around hazardous industrial sites jointly organized by the Industrial Accidents Convention and the ECE Committee on Housing and Land Management (The Hague, 11–12 November 2010);
- (f) Guidance at the EU level prepared for the implementation of the Seveso II Directive.

### 1.3 Methodology

This Guidance was prepared on the basis of a desk review, a survey and its analysis and information and comments provided by national authorities, experts and stakeholders. Table 1 outlines the followed study methodology with the undertaken tasks. The Guidance was prepared jointly by Lorenzo van Wijk, in cooperation with Jerzy Jendroška and Jiří Dusík, consultants to the Secretariat and experts on siting and land-use planning, the legal obligations of relevant UNECE treaties and the practical implementation aspects.

The first two phases entailed an analysis of the relevant documents related with the Industrial Accidents Convention and Protocol on SEA as well as other documents on land-use planning and siting of hazardous activities which could be relevant to the Industrial Accidents Convention and Protocol on SEA. Successively, a survey was prepared to collect information from national authorities and other interested stakeholders (such as civil society, academia, private sector or international organizations) on legislation, policies, measures and practices on land-use planning and safety with regard to siting of industrial hazardous activities, possible industrial accidents and their potential transboundary effects, as well as on related planning and decision-making procedures, including the related public consultations. This survey was distributed in mid-December 2015 to the Parties through the relevant Conventions Secretariats. Twenty six surveys were collected among the distributed ones and the returned answers were evaluated to identify eventual needs, existing good practices and lessons learned regarding the application to safety, land-use planning and siting of hazardous activities of the provisions contained in the Industrial Accidents Convention, the Espoo Convention and the Protocol on SEA. The answers to the survey of the countries are reported in Annex A.1

A first draft Guidance document was prepared on the basis of the collected information and surveys' findings. This was made available to the Parties for their first comments in March 2016 in advance of the Joint Workshop on land-use planning, siting and related safety aspects, organized under the Industrial Accidents Convention, Espoo Convention and its Protocol on SEA, in cooperation with the Committee on Housing and Land Management (Geneva, 13 April 2016). Comments provided by Parties to the Industrial Accidents Convention and the Espoo

Convention and its Protocol on SEA were discussed during the workshop and the guidance will be updated thereafter.

Table 1 Overview of the study methodology and the related tasks

Phase	Task	Method
1	Analyse relevant documents related with the Industrial Accidents Convention and Protocol on SEA	<ul style="list-style-type: none"> <li>Collect and review texts, published literature and other relevant material related with:               <ul style="list-style-type: none"> <li>∴ Industrial Accidents Convention;</li> <li>∴ Protocol on SEA.</li> </ul> </li> </ul>
2	Analyse documents on land-use planning and siting of hazardous activities which can be relevant to the Industrial Accidents Convention and Protocol on SEA.	<ul style="list-style-type: none"> <li>Collect and review texts, published literature and other relevant material:               <ul style="list-style-type: none"> <li>∴ from national, EU or international sources and non-Governmental stakeholders;</li> <li>∴ in other official languages of the ECE legal instruments (provided translated version are made available);</li> <li>∴ on the implementation of the Industrial Accidents Convention and application of SEA procedures related to land-use planning and siting.</li> </ul> </li> </ul>
3	Identify the needs of the beneficiary countries, and collect different approaches and identify potential good practices in the with regard land-use planning and siting of hazardous activities, including the related public consultations	<ul style="list-style-type: none"> <li>Use of survey outcomes;</li> <li>Identify potential (and available) good practice examples from several countries representing different sub-regions of UNECE.</li> </ul>
4	Design a survey in English to the Parties addressing safety, land-use planning and siting and analyse the responses (in English) to the survey.	<ul style="list-style-type: none"> <li>Identify the questions with experts;</li> <li>Send out the survey to the Parties;</li> </ul>
5	Prepare a guidance inclusive of good practices examples (in English) on safety, land-use planning and siting of hazardous activities in line with the provisions of the Industrial Accidents Convention and existing synergies with the Protocol on SEA.	<ul style="list-style-type: none"> <li>Identify and include elements and decision criteria that can be taken into account in the decision-making processes on siting of hazardous activities;</li> <li>Clarify and include the inter-relationships between the general provisions in article 3, paragraph 1, and land-use planning procedures in Article 7 of the Industrial Accidents Convention;</li> <li>Identify and include land-use planning, siting of hazardous activities and public participation procedures as contained in the Protocol on SEA;</li> <li>Clarify and include synergies between the Industrial Accidents Convention and the Protocol on SEA in relation with the siting of hazardous activities;</li> </ul>

Phase	Task	Method
		<ul style="list-style-type: none"> <li>• Include an analysis of the legal aspects at the level of national decision-making on the implementation of hazardous activities siting procedures under the Protocol on SEA;</li> <li>• Include good practices and lessons learned from throughout the UNECE and EECCA countries on land-use planning and siting of hazardous activities, including the related public consultations.</li> <li>• Align the above elements by taking into account: <ul style="list-style-type: none"> <li>∴ the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) as regards access to information and public participation in land-use planning and siting, and the Seveso III and SEA Directives.</li> <li>∴ the existing linkages with principles and guidelines to land management suggested by the ECE Committee on Housing and Land Management;</li> <li>∴ the conclusions of the seminar on land-use planning around hazardous industrial sites in The Hague (November 2010).</li> </ul> </li> </ul>
6	Finalise guidance for the review by group of experts on land-use planning established under the Industrial Accidents Convention Working Group on Development and the Bureau to the Protocol on SEA, Parties to SEA and Industrial Accidents Convention and other stakeholders	<ul style="list-style-type: none"> <li>• Submit and distribute electronically.</li> </ul>

#### 1.4 Land-use planning and the siting and modification of hazardous activities

Land-use planning is important to ensure that urban, industrial, commercial and infrastructural development meet the changing social and economic needs of the community whilst fulfilling quality-of-life, safety, environmental and natural resource objectives. Hence land-use planning can occur at different levels of definition ranging from strategic land-use decisions taken at national level to land-use classification defined at local level. Furthermore, land-use planning being inherently a public process, the participation of members of the public, industry, and other interest groups to inform the decision-making by governmental entities at the national and often town/communal levels is important when planning decisions are being made.

Land-use planning is a framework through which land-use monitoring and compatibility evaluation decisions as well as planning adjustment are implemented. This involves a range of technical, administrative and legislative processes for the purpose of selecting areas and deciding/adopting the type of development within these zones (whilst respecting the compatibility with adjacent land use). All of these processes are consistent with either national applicable laws, regulations, policies and legislation or international agreements and protocols.

Land-use planning also needs taking into consideration that developments are vulnerable to a whole series of hazards originated from natural sources (meteorological, topographical, and environmental), are man-made (technological, industrial, warfare) or result from an interaction between these fields. The consequences of these hazards can be evaluated in terms of human, environmental material and economic losses, interruption of social, economic and community life and can adversely affect development. Consequences derived from man-made and technological hazards can be grouped under lead to short-term effects (e.g. accidental release) and long-term or permanent effects (e.g. industrial or municipal emissions, noise, etc.).

Natural hazards are covered by national and international legislation and well-established state-of-the-art procedures. Risk related decision-making in land use planning takes into account long-term or permanent impacts by means of environmental assessment tools: SEA for impacts of proposed plans, programmes and policies; or EIA for proposed activities. The SEA process is in particular used in the context of land use planning/decision-making. Because the EIA covers a shorter time span than the SEA and takes place after the SEA, EIA outcomes are used to support decision-making on the siting of the considered hazardous activities as well as regarding eventual their significant modifications.

On the other hand, the Industrial Accidents Convention (and the European Union Seveso III Directive) aims at preventing and reducing industrial accidents as well as mitigating their effects and is therefore focused on the short-term accidental releases and their effects on people and the environment. Hence their use for defining land-use planning in the vicinity of hazardous activities, establishing the siting of these and assessing and approving eventual significant modifications to the hazardous activities.

In this Guidance land-use planning refers to the management and control of the use of the land in the immediate vicinity of hazardous activities according to the resulting risk (or adverse effects) in case of accidents by such activities to the population and the environment. This involves the risk management of different types or forms of development in relation with their land-use. However, such decision making includes not only technical elements but also social, economic, juridical and political aspects.

Also the decisions on the siting of new hazardous activities depend on a number of criteria that are different whether seen from the local authority or industry angle. In this Guidance siting relates to the implementation of procedures and policies that have the purpose to minimise the risks involved to the population and the environment and which also involves the participation of the public. Furthermore, during their lifetime existing hazardous activities can optimise their processes, improve safety and/or build new installations. This involves changes related to the nature or quantity of hazardous substances present, existing process conditions and operating procedures as well as plant or equipment. Depending on whether additional hazards were introduced or the severity of the consequence of hazards being realised was increased, these changes can have either a negative or positive impact on the risk profile of a hazardous activity. Significant modifications in this Guidance refer to changes that can have significant repercussions with respect to the prevention of relevant accidents or the limitation of their consequences to people and the environment.

The initial purpose of this Guidance was to promote and advocate the merits of applying SEA as a tool that could help to address safety aspects of hazardous activities and the wider environmental concerns during land-use planning processes. The SEA process has several functions that can be used to verify whether, and how, the proposed land-use plans take into account the hazardous activities or whether the proposed land-use plans or programmes directly or indirectly influence existing or proposed installations where industrial accident can happen. The SEA can also facilitate consultations with the authorities and the public on these topics during land-use planning. However, the outcomes of the surveys showed that while the concerns related to industrial accidents should be ideally addressed early-on and at a higher level of decision-making, the land-use planning itself may not always work with sufficiently detailed information to allow such concerns to be addressed. The most relevant specific issues of concern often become known either in decision-making on siting and project-level design and

management procedures. For this reason, additional sections on both the EIA and Espoo Conventions were added to the scope of this Guidance because they are more relevant with regard to their decision making on siting of hazardous activities and their modification,

The Guidance is being developed to support national authorities in developing, implementing and reviewing policies, strategies and measures related to land-use planning and the siting of hazardous activities. Guidance on policy, legal and procedural matters (Part A) is supplemented by technical guidance on the risks from hazardous facilities (Part B) to support planning decisions regarding the land use by such activities and around them. In this context land-use planning represents both a prevention as well as a mitigation instrument. Such support is related with presenting guidance, experience, good practice and lessons learned on policies, legislation and measures of land-use planning in the vicinity of hazardous activities, as well as the siting and significant modification of hazardous activities. This will be supplement with information on:

- Technical measures (prevention or mitigation measures requested from the hazardous activity for the permit to operate and/or external safety and emergency measures);
- Planning measures (land allocation, zoning, spacing safeguards, etc.).

## 1.5 Structure of the Guidance

The present Guidance document is divided in two parts, respectively centred on legislative and technical aspects, to support planning decisions regarding the land use by hazardous activities and in their vicinity.

Part A provides guidance on policy, legal and procedural matters and is structured in five Chapters and one Annex. The background to this Guidance and its aims are set out in Chapter I.

In Chapter II are presented the interlinkages, synergies and complementarities between the different legal instruments.

Chapter II presents the application of SEA for land-use plans and programmes – experiences and good practice by Member States

Chapter III presents best practices within some of the UNECE countries in relation to land use planning and siting of hazardous activities and considering transboundary effects.

Chapter IV summarises the available guidance on the both UNECE and EU different legal instruments addressing land-use planning and siting and provide some agreed approaches and principles.

Chapter V provides guidance on legal, procedural and administrative aspects.

The Annex to Part A is made of two Sections.

The surveys responses are presented in Section 1.

In Section 2 the relevant documents related with the Industrial Accidents Convention and Protocol on SEA are reviewed with a particular focus the implementation of the Industrial Accidents Convention and application of SEA procedures related to land-use planning and siting including the legal requirements. Also relevant material from international sources such as EU Seveso III and SEA Directives are analysed.

Part B presents technical guidance on the risks aspects from hazardous facilities and is composed of two Chapters and one Annex.

Chapter I illustrates technical aspects which are relevant to land-use planning and safety with regard to the siting and modification of hazardous activities. It describes land-use planning methods (and risk acceptance criteria) and best practices within some of the UNECE countries in relation to land use planning and siting of hazardous activities and considering transboundary effects.

Chapter II presents technical elements relevant for establishing the compatibility of land-use with the hazardous industry.

The Annex to part B is made of one section:

Section 1 presents an overview of technical aspects, definitions and basic concepts of land-use planning in the context of industrial hazardous activities. It introduces briefly the different technical and risk terminology in the context of risk management of hazardous industrial activities to clarify their meaning and provide a practical and realistic understanding

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## II Interlinkages, synergies and complementarities between legal instruments

This Chapter deals with a legal analysis of the relevant UNECE and EU instruments in the area of land-use planning in the vicinity of hazardous facilities. It reviews the relevant provisions of three UNECE instruments (Industrial Accidents Convention; Protocol on SEA, Aarhus Convention) including the respective Annexes of the Protocol on SEA (I and II) and Industrial Accidents Convention (I) and three EU Directives (Seveso, EIA and SEA Directives).

### Introduction

The Industrial Accidents Convention requires in article 3 para 1 that the *“Parties shall, taking into account efforts already made at national and international levels, take appropriate measures and cooperate within the framework of this Convention, to protect human beings and the environment against industrial accidents by preventing such accidents as far as possible, by reducing their frequency and severity and by mitigating their effects. To this end, preventive, preparedness and response measures, including restoration measures, shall be applied.”* This obligation is further elaborated in paragraph 2 which reads:

*“2. The Parties shall, by means of exchange of information, consultation and other cooperative measures and without undue delay, develop and implement policies and strategies for reducing the risks of industrial accidents and improving preventive, preparedness and response measures, including restoration measures, taking into account, in order to avoid unnecessary duplication, efforts already made at national and international levels.”*

One of the most important measures to implement the above general obligation is by addressing safety aspects of hazardous activities in land-use planning and siting both at the stage of taking strategic decisions (in form of plans or programmes) and at the stage of taking permitting decisions authorising concrete activities to be undertaken in concrete sites, or their subsequent modifications. The issue is addressed specifically in art. 7 of the Convention which reads as follows:

#### **“Article 7**

##### ***Decision-making on siting***

*Within the framework of its legal system, the Party of origin shall, with the objective of minimizing the risk to the population and the environment of all affected Parties, seek the establishment of policies on the siting of new hazardous activities and on significant modifications to existing hazardous activities. Within the framework of their legal systems, the affected Parties shall seek the establishment of policies on significant developments in areas which could be affected by transboundary effects of an industrial accident arising out of a hazardous activity so as to minimize the risks involved. In elaborating and establishing these policies, the Parties should consider the matters set out in Annex V, paragraph 2, subparagraphs (1) to (8), and Annex VI hereto.”*

When establishing the above mentioned policies, the Parties must take into account the fact that national frameworks regarding land use planning and siting are also subject to other instruments. The key UNECE instruments that must be taken into account when addressing safety aspects of hazardous activities in land-use planning and siting are - apart from Industrial Accidents Convention - also the Protocol on SEA, the Espoo Convention and the Aarhus Convention. The above instruments only rarely make a formal link between the obligations stemming from each other. In practice however, bearing in mind their field of application and both procedural and substantive obligations resulting therefrom, a number of interlinkages, synergies and complementarities between them may be observed. They may have a bearing on practical implementation of the respective obligations. This factor should be taken into account when designing national frameworks.

When addressing safety aspects of hazardous activities in land use planning and siting, EU Member States and countries willing to approximate their legal framework with the environmental acquis must also take into account the obligations stemming from relevant pieces of EU legislation, in particular Directive 2012/18/EU on the control

of major-accident hazards involving dangerous substances (Seveso III Directive), Directive 2001/42/EC of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (SEA Directive) and Directive 2011/92/EU of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (EIA Directive) which all implement the provisions of the respective UNECE instruments into the EU law.

Of particular importance in this respect is the Seveso III Directive which, in its Article 13 entitled “Land use planning” requires that EU Member States develop their policies related with land-use planning considering the objectives of preventing major accidents and limiting the consequences of such accidents for human health and the environment. These objectives can be reached by controlling (1) the siting of new establishments, (2) modifications to existing establishments covered by Article 11 and (3) other new developments in the vicinity of establishments, such as residential areas, public use environments and transport routes, which may be the source of or increase the risk or consequences of a major accident.

These policies and their implementation need to maintain, in the long term, appropriate distances between establishments covered by the Seveso Directive and urban areas (e.g. residential areas, buildings and areas of public use), areas of particular natural sensitivity or interest and as far as possible major transport routes. For existing establishments, additional technical measures and technical advice need to be taken for not increasing the risks from an establishment to population and the environment as in accordance with Article 5.

The Directive obliges also EU Member States to ensure that all competent authorities and planning authorities responsible for respective decisions set up appropriate consultation procedures to facilitate implementation of the above mentioned policies (Article 13 para 3). The procedures shall be designed to ensure that operators provide sufficient information on the risks arising from the establishment and that technical advice on those risks is available, either on a case-by-case or on a generic basis, when decisions are taken.

As far as the coherence with the obligations set by and terminology used in other UNECE agreements and the corresponding European Union legislation is concerned worth noting is that in the context of the obligations related to the instruments relevant to land-use planning they use the term „plans and programmes”. This is the case in the Aarhus Convention, the Espoo Convention and its Protocol on SEA and also the Seveso III Directive, SEA Directive and Directive 2003/35/EC of 26 May 2003 providing for public participation in respect of drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC (Public Participation Directive).

Thus, in case of siting concrete new hazardous activities or significant modifications to existing hazardous activities this would be usually individual permitting decisions/development consents regulated under the Espoo Convention, Aarhus Convention and EIA Directive. In case of general planning this would be land use plans regulated under the Protocol on SEA, SEA Directive and Aarhus Convention.

### **Scope of obligations**

The scope of the Industrial Accidents Convention as per its article 2 reflects a compromise of the States negotiating the Convention. At the Meeting on the Protection of the Environment of the Conference on Security and Cooperation in Europe (Sofia, 16 October–3 November 1989) which recommended that ECE elaborate an international convention on the prevention and control of the transboundary effects of industrial accidents<sup>3</sup>, many delegations had recommended the creation of a broader convention on reciprocal assistance in case of any accident involving hazardous substances, and possibly also the establishment of global general principles for the prevention

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<sup>3</sup> See report on the conclusions and recommendations of the meeting, available from: <http://www.osce.org/eea/14075>.

of, preparedness for and response to industrial accidents. Article 2 para. 1 divides the operative provisions of the Convention into those related only to industrial accidents capable of causing transboundary effects (articles 4-11) and those related to all industrial accidents, irrespectively of whether they are capable or not of causing transboundary effects, namely on mutual assistance, research and development, exchange of information and exchange of technology (articles 12-16). While the very need for such a division is obvious, the way it is done in the Convention does not seem to be fully consistent and clear. For example in article 3 (General provisions) there are general obligations to “take appropriate measures and cooperate to protect human beings and the environment against industrial accidents” while the entire article 3 never mentions “industrial accidents capable of causing transboundary effects”. The indirect reference to transboundary effects may be found only in paragraphs 3 and 5 which refer to hazardous activities, which themselves are defined in article 1 (b) as those “capable of causing transboundary effects”. While it is clear that some obligations (for example those referred to in articles 4 and 5 or in article 9 paragraph 2 or article 10 paragraphs 2 and 3, or article 11 paragraph 2) by their very nature are related only to industrial accidents capable of causing transboundary effects, it seem to be reasonable to consider, in the light of the general obligations in article 3, that for example the obligation in article 11 paragraph 1 concerning adequate response measures to be taken, applies to all industrial accidents and not only those “capable of causing transboundary effects”.

The above described approach of the Industrial Accidents Convention is different as compared with the approach taken by other respective UNECE agreements and the corresponding European Union legislation.

The Seveso III Directive is aiming first of all to harmonize the domestic legal framework for the prevention of, preparedness for and response to all industrial accidents, irrespectively of whether they are capable or not of causing transboundary effects. The same approach, respectively, is taken in case of the EIA Directive and SEA Directive in case of environmental assessment procedures. Also the Aarhus Convention is aiming first of all to harmonize the domestic legal frameworks. The Espoo Convention and the Protocol on SEA regulate the transboundary procedure in case of activities capable of having transboundary effects on the basis of general obligations regarding the domestic scheme for the assessment of all activities likely to have significant impact on the environment.

Of course, such questions of application discussed in this section arise primarily for States that are Parties to more than one of the examined herein international instruments.

### **Field of application and activities covered**

According to article 2 para 1 of the Industrial Accidents Convention it “*shall apply to the prevention of, preparedness for and response to industrial accidents capable of causing transboundary effects, including the effects of such accidents caused by natural disasters, and to international cooperation concerning mutual assistance, research and development, exchange of information and exchange of technology in the area of prevention of, preparedness for and response to industrial accidents*”. The Convention does not apply to accidents indicated in art.2 para 2.

“Industrial accident” is defined in the Convention as “*an event resulting from an uncontrolled development in the course of any activity involving hazardous substances either:*

- (i) *In an installation, for example during manufacture, use, storage, handling, or disposal; or*
- (ii) *During transportation in so far as it is covered by paragraph 2 (d) of Article 2”*

The core obligations of the Convention relate to hazardous activities which are defined as follows:

“*Hazardous activity*” means any activity in which one or more hazardous substances are present or may be present in quantities at or in excess of the threshold quantities listed in Annex I hereto, and which is capable of causing transboundary effects”

Worth mentioning is the fact that article 7 of the Industrial Accidents Convention covers siting of both new hazardous activities and significant modifications to existing hazardous activities.

The term "hazardous activity" may be considered as a subset of the more general term "proposed activity" which is defined by the Espoo Convention as *"any activity or any major change to an activity subject to a decision of a competent authority in accordance with an applicable national procedure"*. Also the Aarhus Convention uses the term "proposed activities", which - while not defined in the Aarhus Convention - should be seen, according to the Aarhus Implementation Guide (page 131), in the light of the term "proposed activity" as used in the Espoo Convention. The Guide considers this term as broad enough to cover both the term "project" and the term "installation" as used by related EU Directives.

As indicated in the Aarhus Implementation Guide (page 253) Annex I to the Aarhus Convention was based on the annexes relating to similar provisions in the EIA Directive, the Espoo Convention and the original IPPC Directive 96/61/EC. It covers also changes to and extensions of the activities covered therein.

According to EIA Directive "project" means:

*"the execution of construction works or of other installations or schemes, other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources;"*

The EU Seveso III Directive defines 'installation' as *"a technical unit within an establishment and whether at or below ground level, in which dangerous substances are produced, used, handled or stored; it includes all the equipment, structures, pipework, machinery, tools, private railway sidings, docks, unloading quays serving the installation, jetties, warehouses or similar structures, floating or otherwise, necessary for the operation of that installation."* Under the Seveso III Directive the installation is considered just a part of a wider concept of 'establishment' which is the primary subject of obligations stipulated in the Directive. The 'establishment' is defined by the Seveso III Directive as *"the whole location under the control of an operator where dangerous substances are present in one or more installations, including common or related infrastructures or activities; establishments are either lower-tier establishments or upper-tier establishments."*

With all the synergies between the above mentioned terms, the field of application of the respective legal instruments is not the same. Not all of the "proposed activities" listed in Appendix I to the Espoo Convention can be considered as being also "hazardous activities" subject to obligations under the Industrial Accidents Convention, while - on the other hand - there is a number of "hazardous activities" which are covered by Appendix I to the Espoo Convention. The same applies to Annex I to the Aarhus Convention which is broadly comparable to Appendix I to the Espoo Convention (see Guide page 240).

The very definition however of "hazardous activities" in combination with the definition of "transboundary effects" (article 1 (b) and 1 (c) of the Industrial Accidents Convention) suggests that all "hazardous activities" under the Industrial Accidents Convention, including those not covered by Annex I to the Aarhus Convention, fall under the article 6.1.b) of the Aarhus Convention which require Parties to apply provisions of article 6 regarding public participation not only to activities listed in its Annex I but also to "decisions on proposed activities not listed in Annex I which may have a significant effect on the environment".

Apart from the above discussed specific activities, obligations under the Industrial Accidents Convention relate also to addressing safety aspects of hazardous activities in land use planning and siting at the stage of taking strategic decisions in form of plans or programmes. And the preparation of plans and programmes is subject to some obligations under the Protocol on SEA and Aarhus Convention.

The Protocol on SEA requires that a strategic environmental assessment is carried out for plans and programmes referred to in paragraphs 2, 3 and 4 which are likely to have significant environmental, including health, effects.

They include plans and programmes which are prepared for “town and country planning or land use”. In fact land use plans are often given as a typical example of plans subject to SEA (see SEA Resource Manual page 50).

Minor modifications to plans and programmes as well as plans and programmes which determine the use of small areas at local level are subject to screening. According to article 5, paragraph 1 of the Protocol on SEA “Plans and programmes” under the Protocol on SEA (art.2 para 5) “*means plans and programmes and any modifications to them that are:*

- a. *Required by legislative, regulatory or administrative provisions; and*
- b. *Subject to preparation and/or adoption by an authority or prepared by an authority for adoption, through a formal procedure, by a parliament or a government.”*

The Aarhus Convention requires in Article 7 that public participation is assured during the preparation of “plans and programmes relating to the environment”. The terms “plans” and “programmes” are not defined in the Aarhus Convention. The Aarhus Implementation Guide (page 182) refers in this respect to the above quoted definition from the Protocol on SEA, indicating land use plans also as typical examples of “plans and programmes relating to the environment”.

Thus, there may be plans and programmes subject to SEA (or to screening) under the Protocol on SEA or “plans and programmes relating to the environment” under the Aarhus Convention to which the provisions of the Industrial Accidents are not necessarily applicable. However, all plans and programmes that fall within the scope of application of the Industrial Accidents Convention also fall by definition within the scope of application of the Protocol on SEA and that of the Aarhus Convention. In other words, Parties have to implement their obligations under the Industrial Accidents Convention, as well as those arising from the Protocol on SEA and the Aarhus Convention – as long as they are Parties to all these instruments. It is further to be noted that the scope of application of article 7 of the Aarhus Convention is much wider than the scope of application of the Protocol on SEA and that of the SEA Directive: article 7 of the Aarhus Convention covers any plan and programme regardless of whether it “sets the framework” for projects; it also covers minor modifications to existing plans and programmes as well as plans and programmes which determine the use of small areas at local level, which are subject to screening under SEA schemes (Aarhus Convention Implementation Guide page 173).

### **Public authorities and their respective roles and competences**

According to article 17 para 1 of the Industrial Accidents Convention “Each Party shall designate or establish one or more competent authorities for the purposes of this Convention.” Similarly, under the Espoo Convention “*Competent authority*” means the national authority or authorities designated by a Party as responsible for performing the tasks covered by this Convention and/or the authority or authorities entrusted by a Party with decision-making powers regarding a proposed activity”.

The term „public authority” is defined by the Aarhus Convention as follows:

“*Public authority*” means:

- (a) *Government at national, regional and other level;*
- (b) *Natural or legal persons performing public administrative functions under national law, including specific duties, activities or services in relation to the environment;*
- (c) *Any other natural or legal persons having public responsibilities or functions, or providing public services, in relation to the environment, under the control of a body or person falling within subparagraphs (a) or (b) above;*

(d) *The institutions of any regional economic integration organization referred to in article 17 which is a Party to this Convention.*

*This definition does not include bodies or institutions acting in a judicial or legislative capacity;”*

The Protocol on SEA requires in Article 9, paragraph 1 that

*“Each Party shall designate the authorities to be consulted which, by reason of their specific environmental or health responsibilities, are likely to be concerned by the environmental, including health, effects of the implementation of the plan or programme.”*

These authorities must be consulted regarding screening (art.5.2) scoping (art 6.2) and draft plan or programme and the environmental report (art.9.2). Furthermore, art 9.4 requires that

*“4. Each Party shall determine the detailed arrangements for informing and consulting the environmental and health authorities referred to in paragraph 1.”*

Similar requirements regarding consultation with environmental authorities are included in the SEA and EIA Directives.

The obligation in article 9 para 1 of the Protocol on SEA to designate authorities which by reason of their specific environmental or health responsibilities, are likely to be concerned by the environmental, including health, effects of the implementation of the plan or programme must be seen in the context of the obligation to designate authorities competent for the purposes of the Industrial Accidents Convention. In this context authorities designated according to article 17 para 1 of the Industrial Accidents Convention should be considered as the environmental authorities to be consulted during respective EIA and SEA procedures.

### **Screening**

In order to determine whether certain obligations apply to certain activities a special test must be performed by Parties to the Protocol on SEA which is commonly referred to as “screening”. It is quite formalised under the Protocol on SEA and SEA Directive which envisage both procedural details and criteria to be applied for the purpose of screening whether respective plans and programmes (or modification to them) require SEA to be conducted (see annex, part ...). Similar formal screening procedure and criteria are envisaged by the EIA Directive. The Espoo Convention does not specify requirements regarding the screening procedure but provides screening criteria in its Appendix III.

Only the EU SEA Directive specifically indicates the possibility of accidents among the criteria. The screening criteria under all instruments include however a number of factors for which safety aspects of hazardous activities might be of relevance (for example: general reference to risk, setting the framework for projects or activities etc.). Furthermore, the matters indicated in Annex V (analysis and evaluation) and Annex VI (decision-making on siting pursuant to article 7) to the Industrial Accidents Convention should be taken into account as specific criteria to be applied when considering the risk factor for the purpose of screening. They might be applied for this purpose both in case of siting of hazardous activities and in case of land use plans or siting of any other activities in the vicinity of hazardous activities.

The Industrial Accidents Convention provides in Annex I a list of hazardous substances for the purposes of defining hazardous activities. While the Convention itself does not provide any specific criteria for identifying activities “capable of causing transboundary effect,” Guidelines to facilitate the identification of hazardous activities for the purposes of the Convention (decision 2000/3) have been adopted by the first meeting of the Conference of the Parties (Brussels, 22-24 November 2000) , subsequently amended by the decision 2004/2 at the third meeting of the Conference of the Parties (Budapest, 27 - 30 October 2004 - see Section 4.1.2). Furthermore, EIA or SEA

procedures as well as respective screening procedures may be considered one of the most important sources of information for this purpose.

As the obligations under article 7 of the Industrial Accidents Convention relate to both new hazardous activities and significant modifications to existing hazardous activities and the Convention does not include any specific criteria to determine “significance” of modifications - the respective criteria under the Espoo Convention or EIA Directive may apply accordingly.

As already indicated above, the Protocol on SEA requires in article 5 para 2 that the environmental and health authorities designated in accordance with article 9 para 1, are consulted during screening procedure.

This requirement, combined with the fact that authorities designated according to article 17 para 1 of the Industrial Accidents Convention should be considered as the environmental authorities to be consulted, may be seen not only as a procedural guarantee to ensure that safety aspects of hazardous activities are properly taken into account during screening procedures but also as a measure to assist these authorities designated under the Industrial Accidents Convention to fulfil their obligations under this Convention, in particular the obligation in article 4 para 1 to identify hazardous activities.

Similar interlinkages, synergies and complementarities, albeit not always so clearly regulated, may be observed between the obligations under the Industrial Accidents Convention, EU Seveso III Directive and the respective legal schemes for screening under the SEA Directive and EIA Directive.

### **Scoping**

In order to determine the precise and case-specific scope of information needed to be included in the assessment documentation (environmental report) a special procedural stage called “scoping” is envisaged in EIA/SEA procedures. Scoping defines the information content in terms of both the topics to be considered and the depth or detail of the information to be presented on each topic. The aim of scoping is thus to ensure that the environmental report is correctly focused, providing enough information on what really matters and not cluttering the report with what does not (SEA Resource Manual page 62)<sup>4</sup>.

The role of scoping in the assessment procedure is well defined in the Protocol on SEA as well as in EIA and SEA Directives. According to the Protocol on SEA scoping is decisive to ensure that the information required to be included in the environmental report is relevant (art.6 para 1 of Protocol on SEA) and in accordance with the criteria listed in article 7 para 2. Worth noting in this respect is especially the requirement to ensure that the environmental report reflects the information needs of the decision-making body (art.7 para 2 (d)). This requirement should be seen in the context of the above mentioned obligations under the Industrial Accidents Convention regarding addressing safety aspects of hazardous activities in land-use planning and siting with a view to minimize the risk. Of particular importance in this respect are the matters indicated in Annex V and Annex VI to the Industrial Accidents Convention which should be considered.

As already mentioned above, the Protocol on SEA requires in article 6 para 2 that the environmental and health authorities designated in accordance with article 9 para 1, are consulted during the scoping procedure.

This requirement, combined with the fact that authorities designated under the Industrial Accidents Convention should be considered as the environmental authorities to be consulted under the Protocol on SEA, may be seen as a procedural guarantee to ensure that safety aspects of hazardous activities are properly taken into account in the environmental report.

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<sup>4</sup> available at <http://www.unece.org/index.php?id=27379>

Similar interlinkages, synergies and complementarities, albeit not always so clearly regulated, may be observed between the obligations under the Industrial Accidents Convention, EU Seveso III Directive and the respective legal schemes for scoping under the SEA Directive and EIA Directive.

### **Environmental report**

An important role in the environmental assessment (whether EIA or SEA) is envisaged for the assessment documentation (usually called “environmental report”). Requirements regarding the environmental report are quite similar in the Espoo Convention, Protocol on SEA and the EU EIA and SEA Directives. They all require the report to describe environmental problems relevant to the respective activity and description of its likely significant effects as well as measures to prevent, reduce or mitigate any significant adverse effects. Implicitly the above requirements include a description of potential risk associated with hazardous activities and measures to prevent, reduce or mitigate the risk of industrial accidents as well as respective preparedness measures.

Worth noting in this respect is a requirement in the Protocol on SEA which require in Annex IV point 5 the report to describe:

*“5. The environmental, including health, objectives established at international, national and other levels which are relevant to the plan or programme, and the ways in which these objectives and other environmental, including health, considerations have been taken into account during its preparation.”*

The above mentioned objectives may include measures envisaged in the off-site contingency plans prepared for hazardous activities (article 8 para 3 of the Industrial Accidents Convention).

The most direct obligation to address safety aspects of hazardous activities in the environmental report is provided by the EIA Directive, which in Annex IV, point 8 requires the report to include:

*“A description of the expected significant adverse effects of the project on the environment deriving from the vulnerability of the project to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to Union legislation such as Directive 2012/18/EU of the European Parliament and of the Council or Council Directive 2009/71/Euratom or relevant assessments carried out pursuant to national legislation may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.”*

Furthermore, the EIA Directive requires in Annex IV point 5 the environmental report to include

*“. A description of the likely significant effects of the project on the environment resulting from, inter alia:*

- (e) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);*
- (f) the accumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;”*

Worth noting in relation to the proper reflection of safety aspects of hazardous activities in the environmental report is also a requirement in article 5 para 1 f) of the EIA Directive to include in the report: “

- (g) any additional information specified in Annex IV relevant to the specific characteristics of a particular project or type of project and to the environmental features likely to be affected.”*

## Access to information

The issue of access to information is of crucial importance for successful policies related to the prevention of, preparedness for and response to industrial accidents, in particular for the inclusion of safety aspects of hazardous activities into the land use planning and siting. The Industrial Accidents Convention addresses this issue in a number of provisions dealing with different aspects: a) provision of information between the Party of origin and affected Parties, b) provision of information to authorities and c) provision of information to the public. These provisions and their role for the inclusion of safety aspects of hazardous activities into the land use planning and siting should be seen in the context of other UNECE instruments.

As far as the provision of information between the Party of origin and affected Parties is concerned, the issue is generally regulated in article 15 and Annex XI to the Industrial Accidents Convention. Worth noting are particularly the obligations related to exchange of information for the emergency preparedness, in particular concerning contingency plans (Annex XI and art.9 paras 1 and 2). These obligations are of continuous nature, i.e. they are relevant also after completion of the transboundary procedures and consultations envisaged in art 4 and Annex III to the Industrial Accidents Convention as well as the respective procedures under the Espoo Convention and Protocol on SEA.

One of the important preventive measures the Industrial Accidents Convention considers (Annex IV point 5) the provision to the competent authorities of the information needed to assess risks. This obligation may be seen in the context of the obligations in article 5 para 1 of the Aarhus Convention:

In Article 5 para 1 (a) the Aarhus Convention requires public authorities to possess and update environmental information relevant to their functions. This is interpreted as a requirement that public authorities possess and update information that is relevant to the decisions and actions that they take (see Aarhus Implementation Guide page 93). Also of relevance is Article 5, paragraph 1 (b) of the Aarhus Convention, which requires mandatory systems to ensure an adequate flow of information to public authorities. It reads:

*“Mandatory systems are established so that there is an adequate flow of information to public authorities about proposed and existing activities which may significantly affect the environment”.*

The above requirement of the Aarhus Convention corresponds with the article 6 para 2 of the Industrial Accidents Convention which reads:

*“With regard to any hazardous activity, the Party of origin shall require the operator to demonstrate the safe performance of the hazardous activity by the provision of information such as basic details of the process, including but not limited to, analysis and evaluation as detailed in Annex V hereto“.*

As far as public access to information is concerned the Industrial Accidents Convention in article 9 para 1 requires Parties to ensure that adequate information, including certain minimum information, is given to the public in the areas capable of being affected by an industrial accident arising out of a hazardous activity. Article 9 para 1 reads:

*“The Parties shall ensure that adequate information is given to the public in the areas capable of being affected by an industrial accident arising out of a hazardous activity. This information shall be transmitted through such*

*channels as the Parties deem appropriate, shall include the elements contained in Annex VIII hereto and should take into account matters set out in Annex V, paragraph 2, subparagraphs (1) to (4) and (9)”.*<sup>5</sup>

At the EU level, the Seveso III Directive includes similar, but more elaborated requirements regarding public access to information. In article 14 para 1 it requires certain specified information to be permanently available to the public, including electronically. The information shall be kept updated, where necessary, including in the event of modifications. Annex V to the Directive specifies the information to be provided in this manner. This includes “general information about how the public concerned will be warned, if necessary” and “adequate information about the appropriate behaviour in the event of a major accident or indication of where that information can be accessed electronically”. In addition, article 14, paragraph 2, requires that all persons likely to be affected by a major accident originating in so-called “upper-tier” establishments - which correspond to the “hazardous activities” defined in accordance with Annex I of the Industrial Accidents Convention - regularly receive clear and intelligible information on safety measures and requisite behaviour in the event of a major accident. The information must include the information in Annex V as a minimum.

The provisions on access to information in the Industrial Accidents Convention are subject to restrictions indicated in article 22 which reads:

**“Article 22**

***Limitations on the supply of information***

*1. The provisions of this Convention shall not affect the rights or the obligations of Parties in accordance with their national laws, regulations, administrative provisions or accepted legal practices and applicable international regulations to protect information related to personal data, industrial and commercial secrecy, including intellectual property, or national security.*

*2. If a Party nevertheless decides to supply such protected information to another Party, the Party receiving such protected information shall respect the confidentiality of the information received and the conditions under which it is supplied, and shall only use that information for the purposes for which it was supplied.”*

The above mentioned provisions of the Industrial Accidents Convention regarding limitations on the supply of information must be seen in the context of the respective provisions of the Aarhus Convention for its Parties which provides a set of precise requirements regarding national frameworks in this respect. The approach to be taken to “protect information related to personal data, industrial and commercial secrecy, including intellectual property, or national security” is regulated in the respective provisions of article 4 of the Aarhus Convention. Without addressing those specifically worth noting in this context are some respective general rules in the Aarhus Convention that must be applied in all the above cases. The Aarhus Convention requires in article 4 para 4 that:

*“grounds for refusal shall be interpreted in a restrictive way, taking into account the public interest served by disclosure and taking into account whether the information requested relates to emissions into the environment”.*

Furthermore, in article 4 para 6 the Aarhus Convention requires that where only part of the information requested falls within one of the exempt categories, the remainder of the information should be separated out and made available to the public.

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<sup>5</sup> Amendments to Article 9 “Information to, and participation of the public” of the Industrial Accidents Convention have been negotiated by Parties in the framework of the Working Group on Development and are expected to be adopted at the ninth meeting of the Conference of the Parties (Slovenia, 28-30 November 2016).

In case of provisions regarding access to information, in particular those regarding information that must be publicly available - worth attention is the importance of the respective obligations for the practical implementation of the EIA and SEA schemes. A proper conduct of respective procedures, including screening and scoping, requires relevant information to be easily and readily available. In particular preparers of the respective environmental reports, usually private consultants, rely heavily on publicly available information. In fact making all relevant information publicly readily available in an easily accessible manner may be considered a precondition for proper inclusion of safety aspects of hazardous activities in land use planning and siting. At the same time, in the light of recent terrorist attacks, which have affected establishments falling under the Seveso III Directive, EU member States and other Parties to the Industrial Accidents Convention face increasingly concerns with regard safety and security, and consider more carefully the information disclosed to the public.

### **Public participation and access to justice**

The Industrial Accidents Convention regulates in article 9 the issues of public participation and access to justice in relation to matters covered by the Convention together with the above described issue of public access to information. Provisions of article 9 are complemented by some provisions in the Annexes addressing specific elements of access to information and public participation<sup>6</sup>.

The state of the art in relation to public access to information, public participation and access to justice in environmental matters is set generally by the Aarhus Convention, while in the matters related to industrial accidents it is set for EU Member States by the Seveso III Directive which implements the Aarhus Convention in this respect.

Both the Aarhus Convention and the Seveso III Directive are broader in their ambit but cover basically most of the issues covered by the Industrial Accidents Convention with regard to public participation and access to justice. The requirements regarding public participation in the respective procedures are clearly addressed also in Espoo Convention and Protocol on SEA, as well as in SEA and EIA Directives. The latter Directive envisages also a provision on access to justice.

Public participation is regulated by the Industrial Accidents Convention in article 9 para 2. It reads:

*“2. The Party of origin shall, in accordance with the provisions of this Convention and whenever possible and appropriate, give the public in the areas capable of being affected an opportunity to participate in relevant procedures with the aim of making known its views and concerns on prevention and preparedness measures, and shall ensure that the opportunity given to the public of the affected Party is equivalent to that given to the public of the Party of origin”.*

The reference to “relevant procedures on prevention and preparedness measures” means reference to both individual specific decisions on siting and to land use planning. While the Industrial Accidents Convention does not provide currently any detailed requirements regarding procedural steps such details are precisely regulated in the other relevant instruments.

The above issues must be seen in particular in the context of the Aarhus Convention which provides in article 6 a scheme for public participation in the decision-making regarding specific activities and in article 7 for public participation in the preparation of strategic decisions, in particular plans and programmes.

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<sup>6</sup> Amendments to Article 9 “Information to, and participation of the public” of the Industrial Accidents Convention have been negotiated by Parties in the framework of the Working Group on Development and are expected to be adopted at the ninth meeting of the Conference of the Parties (Slovenia, 28-30 November 2016).

As indicated earlier the decision regarding “hazardous activities” either fall within the ambit of Annex I to the Aarhus Convention under article 6.1 a) or fall under the article 6.1.b) of the Aarhus Convention. Public participation in accordance with article 6 of the Aarhus Convention might be applied to hazardous activities by way of making them subject to respective EIA procedures as regulated by the Espoo Convention and EIA Directive.

As also already indicated, land use plans must be treated as “plans and programmes relating to the environment” and as such are subject to obligations related to public participation under article 7 of the Aarhus Convention. Public participation in accordance with article 7 of the Aarhus Convention might be applied to land use plans by way of making them subject to respective SEA procedures as regulated by the Protocol on SEA and SEA Directive. It must be borne in mind however, as indicated already earlier, that the scope of application of article 7 of the Aarhus Convention is much wider than the scope of application of the Protocol on SEA and SEA Directive (see Aarhus Convention Implementation Guide page 173).

The Seveso III Directive implements the provisions of the Aarhus Convention to the realm of industrial safety and sets the state of the art in this respect. In article 15 it addresses separately public participation in relation to specific individual projects and in relation to plans and programmes.

The scheme for public participation in relation to specific individual projects (article 15 paras 1-5) is co-related with the provisions regarding land-use planning in article 13 of the Directive and requires that the public concerned be given an early opportunity to give its opinion on the planning of new establishments, on significant modifications to existing establishments, and new developments around existing establishments that may increase the risk or consequences of a major accident. The procedural details regarding public participation are quite detailed and follow closely requirements stipulated in article 6 of the Aarhus Convention.

The scheme for public participation in relation to plans and programmes (article 15 para 6) requires public participation in the preparation and modification or review of general plans and programmes relating to planning of new establishments and to planning new developments around existing establishments that may increase the risk or consequences of a major accident. The procedural details are much less elaborated as the scheme in principle refers to procedural details set in the EU Public Participation Directive.

Worth noting is also the fact that the EU Seveso III Directive requires in article 12 para 5, that the public be given early opportunity to give its opinion on external emergency plans.

Access to justice is regulated by the Industrial Accidents Convention in article 9 para 3. It requires Parties to provide natural or legal persons who are being or are capable of being adversely affected by the transboundary effects of an industrial accident, with access to, and treatment in the relevant administrative and judicial proceedings, including the possibilities of starting a legal action and appealing a decision affecting their rights, equivalent to those available to persons within their own jurisdiction.

This provision must be seen in the context of article 9 para 2 of the Aarhus Convention which requires to provide members of the public concerned having sufficient interest or maintaining impairment of rights with the possibility to challenge substantive and procedural legality of any decisions subject to article 6 thereof. In fact the Seveso III Directive regulates the respective issue by simply referring to applying provisions of article 11 of the EIA Directive which are almost virtually copied from article 9 para 2 of the Aarhus Convention. Worth noting is that Seveso III Directive addresses also access to justice in relation to its provisions on access to information.

### **Transboundary procedure**

Transboundary procedure related to proposed activities regulated in the Industrial Accidents Convention follows quite closely the respective scheme applied by the Espoo Convention. In fact there is even a direct reference to apply the latter. Article 4 para 4 of the Industrial Accidents Convention reads:

*4. When a hazardous activity is subject to an environmental impact assessment in accordance with the Convention on Environmental Impact Assessment in a Transboundary Context and that assessment includes an evaluation of the transboundary effects of industrial accidents from the hazardous activity which is performed in conformity with the terms of this Convention, the final decision taken for the purposes of the Convention on Environmental Impact Assessment in a Transboundary Context shall fulfil the relevant requirements of this Convention.*

There is no formal link between transboundary procedures of the Industrial Accidents Convention and Protocol on SEA as the former seems to be focused solely on specific hazardous activities. On the other hand, it is implicit that plans and programmes envisaging new hazardous activities would trigger transboundary procedure under the Protocol on SEA.

### **Decisions**

The Industrial Accidents Convention mentions in Annex IV the possibility of establishing special preventive measures in form of licensing or authorization system but it does not require them.

The only more elaborated requirements regarding decisions on siting relate to matters that should be considered when taking the decisions. These matters are specified in Annex VI.

As for the other issues related to the decisions the Industrial Accidents Convention seems to be rather relying on the existing decision-making procedures. In case of siting concrete new hazardous activities or significant modifications to existing hazardous activities this would be usually individual permitting decisions/development consents regulated under the Espoo Convention, Aarhus Convention and EIA Directive. In case of general planning this would be land use plans regulated under the Protocol on SEA, SEA Directive and Aarhus Convention.

The above instruments include the requirements regarding legal nature of the decisions and their content, the requirements regarding provisions of reasons and considerations on which a respective decision is based, as well as requirements regarding informing about the decision.

The above fact seems to be somehow acknowledged in annex III, para. 12 to the Industrial Accidents Convention which requires the Party of origin to notify the affected Parties of any decision on the activity, along with the reasons and considerations on which it was based. It is clear that the statement regarding reasons and considerations on which the decision is based should include a clear reference to matters indicated in Annex VI (decision-making on siting pursuant to Article 7).

### **Monitoring**

Both the Protocol on SEA and the Espoo Convention envisage monitoring of the actual effects of the activities subject to respective assessment. The Industrial Accidents Convention mentions in Annex IV, para. 9 the possibility of monitoring and auditing of hazardous activities but does not require it. It does however require a regular flow of information between operators of hazardous activities and competent authorities as well as between the Party of origin and affected Parties. It envisages also (art.8 para 4) that *“contingency plans should be reviewed regularly, or when circumstances so require, taking into account the experience gained in dealing with actual emergencies”*.

Proper monitoring of plans prepared in areas which could be affected by the transboundary effects of an industrial accident arising out of a hazardous activity must be instructed by the analysis of the information submitted by both operators and competent authorities. On the other hand the review of the contingency plans should take into account the results of monitoring.



### III Application of strategic environmental assessment for land-use plans and programmes - experiences and good practices of ECE Member States based on findings survey

Since SEA instruments started to emerge some thirty years ago most of their application related to land-use plans as land-use planning offers an integrative planning instrument which has both development and conservation objectives, clear spatial projections and sets the framework for many development projects that may, individually or cumulatively, cause significant effects on the environment and health. Land-use plans (or their equivalents, e.g. spatial plans, physical plans, etc.) are therefore an ideal “candidate” for applying SEA and similar assessment tools.

In the UNECE region, this situation existed both in EU and EEA countries as well as the countries of Eastern and South-Eastern Europe, the Caucasus and Central Asia. One of the reports that triggered negotiations on the Protocol on SEA, i.e. the Policy recommendations on the use of SEA in Central and Eastern Europe and in Newly Independent States (NIS) prepared for the 1998 Aarhus Ministerial Conference on Environment for Europe (Sofia EIA Initiative, 1998), noted that many CEE and NIS countries already in 1990ies operated two approaches to SEA. One based on EIA/SEA obligations and the second one based on internal requirements for conducting some forms of environmental assessment with elaboration of proposed land-use plans (see Box 1 for details). Especially land use planning requirements in the region offered many opportunities for undertaking SEA since both procedures require identification of the issues, public participation, review of the draft documents, and submission to a political decision-making process.

Box 1 Overview of SEA Provisions in Central and Eastern Europe and Newly Independent States (NIS) in the 1990ies (source: Sofia EIA Initiative)

Countries	EIA Law	EIA in Other Law	EIA Regulation, Decree or Ordinance	Environmental assessment of National Programs, Plans and Policies	Environmental assessment of Land Use Plans
Slovakia	Yes		Not yet	Yes	Yes
Croatia	No	Yes	No	No	Partial
Bulgaria	No	Yes	Yes	Yes	Yes
Latvia	No*		No	No	Partial
Lithuania	Yes	Yes	No	No	Yes
Macedonia	Not yet	No	No	No	Partial
Slovenia	No	Yes	No	No	Yes
Montenegro	No	Yes	No	No	Partial
Czech Republic	Yes	Yes	Yes	Yes	Yes
Estonia	No	No	Yes	No	Partial
Hungary	No	Yes	Yes	No	Yes
Poland	No	Yes	Yes	No	Yes
Russia	No*		Yes	Yes	Yes

\*But does have Ecological Expertise law

The international codification of SEA through the EU SEA Directive and UNECE Protocol on SEA was meant to provide a level-playing field that will ensure that environmental assessments of various plans and programmes, land-use plans included, adhere to the basic standards of good SEA practice. The national transposition of these international standards has actually widened the diversity of their application in various planning domains.

The outcomes of the survey conducted for the purpose of preparing this guidance demonstrate that parties to the Protocol on SEA retain a heavy focus on land-use plans and the land-use planning has become the primary arena for

application of SEA. This is caused both by the systematic nature and the scale of land-use planning as well as by its importance in the development process.

Given the importance of land-use planning, the detailed procedural arrangements in elaboration of these plans and their usual pro-environmental and often even wider sustainability-related functions and objectives, many countries may establish customized forms of SEA for land-use plans that combine the land-use planning obligations with any applicable environmental and SEA-related obligations.

In this wider procedural context, there appears to be an ambition to ensure that land-use planning avoids artificial dichotomy between environmental protection and development, i.e. that it serves as the integrative tool that considers relevant inputs and requirements and that is not fragmented by various partial assessments, interests and viewpoints. Indeed, when examining the consideration of environmental effects in SEA and analyses and evaluations related to industrial accidents in land-use planning, there are many examples of efforts to coordinate or integrate these overlapping and mutually-interlinked assessment obligations. Box 2 provides examples of integrated processes, as mentioned by Parties to the Industrial Accidents Convention, the Protocol on SEA and the Espoo Convention, in response to the survey.

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**Box 2 Regulatory arrangements for strategic environmental assessment and analyses and evaluations related to industrial accidents safety in land-use planning by contracting parties to the Protocol on SEA and the Industrial Accidents Convention (source: UNECE survey, 2016)**

Armenia: According to provisions of the Law on Environmental Impact Assessment and Appraisal (Art. 18), EIA Reports should include description of main risks of potential accidents.

Austria: Austria has implemented the requirements of the Protocol on SEA for land use plans into the existing land use planning acts at provincial level. The SEA requirements have been integrated into the planning procedures. To a certain extent risks and safety aspects are taken into account within the SEA on an individual basis in practice if they are relevant for the assessment. Safety and risk aspects may also have an influence in certain cases in relation to the development of alternatives or to mitigation measures or other SEA steps.

Bulgaria: The Environmental Protection Act includes the legal requirement to include industrial accidents safety considerations in the respective environmental assessment (SEA or EIA). The Environmental Protection Act includes the main stages of the EIA procedure when the EIA procedures are coordinated with the new Seveso III Directive. For the proper implementation of the provisions of art.104 of Environmental Protection Act, a guidance letter (no 05-08-6523/12.10.2015) was prepared by the Minister of Environment and Water which identifies what actions have to be carried out in the stages of SEA procedure of plans in order to ensure safe distances from /to enterprises/ facilities with low and high risk potential.

Estonia: According to Chemicals Act if in the planning and design phase a SEA or an EIA is organised, the risks and hazard relating to the establishment will be assessed and the public will be informed in the course of these proceedings

Finland: Land use plans governed by the Land Use and Building Act (132/1999) must be founded on sufficient studies and reports. When a plan is drawn up, the environmental impact of implementing the plan, including socio-economic, social, cultural and other impacts, must be assessed to the necessary extent. Such an assessment must cover the entire area where the plan may be expected to have material impact. There are also areas where a separate, comprehensive assessment of industrial safety has been done in conjunction to the land-use planning of the area.

Sweden: All accidents are considered environmental impacts, i.e. if they might have impacts on humans, property or cultural heritage or causing pollution of air, water or soil. All potential impacts are described in the EIA or SEA on the level of detail necessary for the decision of siting and land-use plan. The Land-use Planning Act states that the decision on LUP needs to take into account the possibility of access and operability of the rescue services vehicles. The Environmental code states that all possible preventive measures to reduce environmental impacts (as above) needs to be taken unless they are called unreasonable. If the activity can cause damage and preventive measures are deemed unreasonable the permit might be severely limited or no permit given.

#### Portugal

EIA and Industrial Accidents: Decree-Law 150/2015 of 5 August establishes the obligations for compliance with article 13 of Seveso III Directive, namely, the land use compatibility assessment for siting of new establishments decisions (and significant modifications on existing ones), previous to the licensing procedure. This procedure aims to maintain appropriate distances between establishments covered by this Directive and sensitive developments (existing or planned). If the new sites or the changes on existing ones are subject to Environmental Impact Assessment, the procedure of land use compatibility assessment under Decree-Law 150/2015 (Seveso III) is integrated on the Environmental Impact Assessment procedure. In this case, the Environmental Impact Report will include the information related to major accidents and the land use compatibility will be evaluated in this framework. For this purpose, a Seveso expert is part of the assessment commission that evaluates the environmental impact report.

SEA and Industrial Accidents: In the SEA procedure, and according the Decree-Law 232/2007 of 15 June, the entities consulted depend on the specific plan and the potential effects of it application. If a land use plan includes areas where Seveso establishments are located, the Portuguese Environment Agency is consulted regarding Industrial Accidents. In this regard, a guideline related to the integration of major accidents prevention in the SEA of land use municipal plans is available (in Portuguese: Guia para a integração da prevenção de acidentes graves na avaliação ambiental estratégica dos planos municipais de ordenamento do território (APA, 2011)).

Romania: There is no explicit requirement but the effects caused by industrial accidents can be assessed within the Environmental Report (SEA procedure) and are envisaged measures for their prevention/reduction/mitigation.

United Kingdom: The likely impact of projects, plans or programmes on human health and/or the environment are issues that should be considered, where relevant, as part of an EIA or SEA for example resulting from accidents.

Some of the arrangements for coordination of industrial accidents safety considerations with SEA processes can offer a fully integrated process as illustrated in examples of procedures established in Bulgaria, Belgium (Flanders) and Portugal in Box 3, Box 4, Box 5 and Box 6.

### Box 3 Example of possible integration of industrial accidents safety considerations into the land use planning via the SEA process: case of Bulgaria

The Bulgarian legal and regulatory framework allows for the following coordination of SEA and industrial accidents safety considerations within the SEA process for land-use plans:

(a) screening – i.e. determination of whether a minor modification to existing land-use plan or a land-use plan determining the use small areas at local level is likely to have significant environmental, including health effects – Protocol on SEA article 5

According to the guidance letter (N 05-08-6523/12.10.2015) Ministry of Environment and Waters carried out the following for land use plans:

1. For land use plans for sitting of enterprises / facilities with low and high risk potential:

- Check if there is EIA procedure carried out for the investment proposal for sitting of such facilities – if that is the case – check if within the EIA procedure is submitted and evaluated information about the dangerous substances, major accidents risks and measures for prevention, control and limitation of consequences of major accidents for the environment and human health;
- Check if there is approved safety report;
- Safety distances from the enterprise/facility to residential areas, buildings and areas of public use, recreational areas, neighbouring enterprises and objects, areas and constructions that could be the source of or increase the risk or consequences of a major accident and cause domino effect, major transport routes and areas of particular conservation significance and environmental importance.

If for the investment proposal for enterprise/facility is carried out the EIA procedure and above mentioned requirements are met, the competent environmental authority informs the developer of the of the plan that the SEA procedure is not required (according to the provision in art. 91, para 2 of Environmental Protection Act - when the investment proposal included in Annex 1 and 2 of the Environmental Protection Act requires the preparation of a separate plan, the competent environmental authority may at the request of the developer or at its own discretion make only one of the assessments – EIA or SEA. The provision applies to the detailed land-use plans under the Territorial Development Act, which assign respective territories to implement a specific investment proposal in Annex 1 and 2 of the Environmental Protection Act.).

If the requirements are not met (there is no EIA procedure carried out or the other above mentioned requirements are not fulfilled) the competent environmental authority provides instructions for carrying out EIA procedure. The point is that this does not allow the adoption of a detailed development plan and land use change until ensuring of safety distances.

2. When the land use plan is for new residential areas, transport routes and areas of public use:

- The competent environmental authority provide information to the developer for the presence and location of the existing enterprises/facilities (if any) in the territory of the plan/plan modification or close to its borders, as an information about the risk potential of this/these enterprises/facilities, permitted activities and the type and maximum quantities of dangerous substances that are allowed. For the enterprises with high risk potential the competent environmental authority provides additional information to the developer about the parameters of spatial areas of high mortality and serious damages outside the boundaries of the enterprise in a major accident situation, identified and described in the approved safety report. This information should be used by the developer to ensure safety distances and monitoring measures;
- As a part of screening documentation from the developer should be submitted the following: to consider the location of the objects and facilities in the territory of the land use plan with the adopted safety distances, or – to identify safety distances if they are not adopted with the Municipal land use plan; as a part of the screening information, the developer should submit analysis of the expected adverse effects, resulting from the increasing of the risk and the consequences from major accident situation from existing enterprises/facilities with risk potential;
- At the stage of submitting of the screening information to the competent environmental authority, if there are special legislative requirements for safety distances for the enterprise/facility, documentation is sent for opinions to the competent authorities for constructions.
- The screening decision includes information on the accordance with the safety distances and if necessary – conditions and measures;
- Screening decision is a subject to public access and appealing.

**Box 4 Example of possible integration of industrial accidents safety considerations into the land use planning via the SEA process: case of Bulgaria (continue from above)**

(b) scoping i.e. determination of the scope of the assessment and the relevant information to be included in the environmental report - Protocol on SEA article 6

- According to the guidance letter (N 05-08-6523/12.10.2015) within the consultation phase on the scoping report for Municipal spatial plans Ministry of Environment and Waters requires the following information to be included in the SEA report (usually for Municipal):
- The presence and location of the existing enterprises/facilities with high or low risk potential (which construction and exploitation is permitted according to Chapters 6 (SEA and EIA) and 7 (Industrial Accidents)) and for the established spatial areas of serious damages outside the boundaries of the enterprises in a major accident situation;
- If safety distances are not established Ministry of Environment and Waters provides information about the applicable legislative acts (if any) which determine the minimum safety distances;

Ministry of Environment and Waters requires from the developer to ensure the safety distances in the draft of the spatial plan.

(c) Environmental report- Protocol on SEA article 7

SEA report and the draft plan, together with all annexes, are submitted to Ministry of Environment and Waters for opinion within consultation stage. The opinion of the competent environmental authority includes (if necessary) additional conditions and measures, which at the next stage of the SEA procedure are included in the final SEA statement and the developer is obliged to fulfil them.

(d) Public participation - identification of the public concerned - Protocol on SEA article 8

Pursuant to item 24 §1 of the Additional Provisions of the Environmental Protection Act, “public” is one or more natural or legal persons and their associations, organizations or groups established in accordance with national legislation. Pursuant to item. 25 §1 of the Additional Provisions of the Environmental Protection Act, “the public concerned” is the public under item 24, which is affected or likely to be affected, or having an interest in the procedures for approval of plans, programs and investment proposals and taking decisions on the issuance or update of permits under this Act or on the conditions of the permit, including environmental non-governmental organizations established in accordance with national legislation. Identification of the public concerned is made case by case depending of the plan location and characteristics.

(e) Consultation with environmental and health authorities - Protocol on SEA article 9

Within the SEA report consultation stage the competent environmental and health authorities, as the other interested/affected authorities and public have the opportunity to submit statements on the SEA report, including on the major risk accidents information and evaluation.

(f) Transboundary consultations - Protocol on SEA article 10

There are not any specific provisions or guidelines for transboundary consultations

(g) Final decision and monitoring - Protocol on SEA articles 11 and 12

## Box 5 Example of possible integration of industrial accidents safety considerations into the land use planning via the SEA process: case of Belgium, region of Flanders

The legal and regulatory framework of Flanders allows for the following coordination of SEA and industrial accidents safety considerations within the SEA process for land-use plans:

(a) Screening – i.e. determination of whether a minor modification to existing land-use plan or a land-use plan determining the use small areas at local level is likely to have significant environmental, including health effects – Protocol on SEA article 5. A separate screening – additional to SEA screening – is conducted to check the presence of Seveso companies within a 2 km radius of the concerned project/plan site.

(b) Scoping i.e. determination of the scope of the assessment and the relevant information to be included in the environmental report - Protocol on SEA article 6

Relevant information concerned the Seveso-test is part of the scoping.

(c) Environmental report- Protocol on SEA article 7

If a safety report is present, the SEA needs to refer to that report and to include relevant conclusions from the safety report.

(d) Public participation - identification of the public concerned - Protocol on SEA article 8

For each land use plan public participation is obligatory.

(e) Consultation with environmental and health authorities - Protocol on SEA article 9

In land use planning, it depends on several aspects to know which authorities are to be consulted but the environmental authority and the authority responsible for safety is always consulted. This consultations are statutory obligatory.

During siting, the main authorities who participate in the SEA and EIA processes are:

- Urban planning Flanders, Enterprise Flanders, the Municipality or Province: initiators or advisory authorities
- EIA/SEA unit Flanders: process management and quality control
- Flanders Environment Agency, Flanders Nature and Forest Agency, Flanders Housing Agency, Department of Environment Flanders, Department of Agriculture and Fisheries Flanders, Flanders Roads and Traffic Agency, Flanders Public Waste Agency, advisory authorities (authorities with specific environmental responsibilities)

It is laid down in regulations that the relevant Provinces and/or relevant Municipalities are contacted for advice and the above mentioned relevant authorities (which authority depends on the specificity of the plan/project)

(f) Transboundary consultations - Protocol on SEA article 10

If transboundary impact is expected, the necessary transboundary consultations take place.

## Box 6 Example of possible integration of industrial accidents safety considerations into the land use planning via the SEA process: case of Portugal

The legal and regulatory framework of Portugal allows for the following coordination of SEA and industrial accidents safety considerations within the SEA process for land-use plans:

(a) screening – i.e. determination of whether a minor modification to existing land-use plan or a land-use plan determining the use small areas at local level is likely to have significant environmental, including health effects – Protocol on SEA article 5

A guideline related to the integration of major accidents prevention in the SEA of land use municipal plans is available, in Portuguese (Guia para a integração da prevenção de acidentes graves na avaliação ambiental estratégica dos planos municipais de ordenamento do território (APA, 2011)). This guideline specifies if a land use plan includes areas where Seveso establishments are located and where they can be located, there should be a SEA procedure that into account the major accidents prevention.

(b) Scoping i.e. determination of the scope of the assessment and the relevant information to be included in the environmental report - Protocol on SEA article 6

The guideline related to the integration of major accidents prevention in the SEA of land use municipal plans is available, specifies criteria to take into account when defining the scope of the SEA, such as the objectives of the plan in what regards the development of industrial areas.

(c) Environmental report- Protocol on SEA article 7

The guideline related to the integration of major accidents prevention in the SEA of land use municipal plans is available, specifies recommendations related to the definitions of objectives, indicators, criteria and measures to minimize the risk related to the implementation of the plan.

(d) Public participation - identification of the public concerned - Protocol on SEA article 8

The SEA national legal framework regarding public participation is in accordance with the Aarhus Convention and the SEA Directive. The public concerned (i.e. citizens, companies, non-governmental environmental organizations (NGOs)) is defined on a case by case approach depending on the type of plan or programme and their location. It is however mandatory to consult municipalities in case of a local or regional plan or programme as well as the Regional Coordination and Development Commissions in case of a national plans or programme. NGOs are commonly consulted. The Portuguese Environment Agency maintains the national register of NGOs whose contacts are available for public participation purposes.

(e) Consultation with environmental and health authorities - Protocol on SEA article 9

In the SEA procedure, and according the Decree-Law 232/2007 of 15 June, the entities consulted depend on the specific plan and the potential effects of it application. If a land use plan includes areas where Seveso establishments are located, the Portuguese Environment Agency is consulted regarding Industrial Accidents.

(f) Transboundary consultations - Protocol on SEA article 10

Portuguese legislation provides, in Article 8 of the SEA Decree, the minimum procedures for carrying out of transboundary consultations in the case of plans or programmes developed in the country that are likely to have significant environmental effects into another Member State of the European Union. The results of the consultations held in other Member States must be transmitted to the national authorities responsible for preparing plans and programmes.

In the case of plans and programmes developed by other Member States, with likely significant effects on the environment on the territory of Portugal, there is the possibility to participate in the Strategic Environmental Assessment process. It is the Portuguese Environment Agency responsible for carrying out the consultations on these non-national plans and programmes in Portugal, whose results are then transmitted to the Spanish authorities.

In both cases, the consultations take place on the Environmental Report and corresponding version of the plan or programme. There is a bilateral protocol between Portugal and Spain since 2008 (the only EU Member State with which Portugal has inland borders) in order to simplify the formalities, allowing documents and data to be sent directly to the national competent authorities, in parallel with the formal communications made through the competent services of the Ministries of Foreign Affairs.

(g) Final decision and monitoring - Protocol on SEA articles 11 and 12

the guideline related to the integration of major accidents prevention in the SEA of land use municipal plans is available, specifies recommendations related to the definitions of objectives, indicators, criteria and measures to minimize the risk related to the implementation of the plan.



## IV Existing guidance and recommendations

This Chapter summarises the available guidance on the both UNECE and EU different legal instruments addressing land-use planning and siting.

### 4.1 Guidance under the Industrial Accidents Convention

#### 4.1.1 Working areas under the Convention

The Conference of the Parties identified six priority working areas corresponding to the key requirements of the Convention, which form part of the Strategic Approach to delivering assistance under its Assistance Programme: 1) identification and 2) notification of hazardous activities, 3) prevention, 4) preparedness, 5) response and mutual assistance and 6) public information and participation. Two additional working areas have been identified – the siting of hazardous activities and civil liability. The Conference of the Parties decided that these two areas would be addressed after most of the shortcomings in the first six working areas are dealt with adequately<sup>7</sup>. This Guidance will support Parties and beneficiary countries to the Convention's Assistance Programme in addressing the working areas on the siting of hazardous activities.

#### 4.1.2 Location criteria for the identification of hazardous activities

The Conference of the Parties of the Industrial Accidents Convention at its first meeting (Brussels, 22-24 November 2000) adopted Guidelines to facilitate the identification of hazardous activities for the purposes of the Convention (decision 2000/3). The Guidelines were amended by the decision 2004/2 at the third meeting of the Conference of the Parties (Budapest, 27 - 30 October 2004). The decision amended paragraph 5 of the Guidelines to facilitate the identification of hazardous activities for the purposes of the Convention.

The amended decision established the following location criteria for the purpose of identifying hazardous activities capable of causing transboundary effects under the Convention:

- (a) Within 15 kilometres from the border, for activities involving substances that may cause a fire or explosion or involving toxic substances that may be released into the air in the event of an accident;
- (b) Along or within catchment areas 2/ of transboundary and border rivers, transboundary or international lakes, or within the catchment areas of transboundary groundwaters, for activities involving substances that fall under category 3, 4, 5 or 8 of part I of annex I to the Convention and that may be released into watercourses in the event of an accident. Whether or not such an activity is capable of causing a transboundary effect in such an event should be decided by the competent authority of the Party of origin, preferably in consultation with joint bodies. 3/ The decision should depend, among other things, on the existence of river warning and alarm systems and the distance 4/ between the location of the hazardous activity and the border.

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<sup>7</sup> See Benchmarks for the implementation of the Convention on the Transboundary Effects of Industrial Accidents, outlining the Strategic Approach (ECE/CP.TEIA/2010/6), adopted by the Conference of the Parties at its sixth meeting (The Hague, 8-10 November 2010, see ECE/CP.TEIA/22, para. 39 a) available from: [www.unece.org/fileadmin/DAM/env/teia/doc/AP/AP\\_Tools/Benchmarks\\_ece.cp.teia.2010.6.EN.pdf](http://www.unece.org/fileadmin/DAM/env/teia/doc/AP/AP_Tools/Benchmarks_ece.cp.teia.2010.6.EN.pdf)

## 4.2 Guidance under the Protocol on SEA

The UNECE has published a comprehensive set of guidance materials to support practical application of Espoo Convention, such as – amongst others - Specific methodologies and criteria to determine the significance of adverse transboundary impact (1995) or Guidance on the practical application of the Espoo convention (2003).

With regard to SEA, the UNECE in 2012 has published a Resource Manual to Support Application of the Protocol on Strategic Environmental Assessment which highlights the main requirements of the Protocol on SEA, outlines the key issues for applying the Protocol in practice, provides materials for training and capacity-development programmes for its application.

The Manual is divided into two parts reflecting its dual target audience. Part A provides practical tips for those applying the Protocol. Part B has offers materials for trainers and others developing capacity to apply the Protocol. Of particular relevance is chapter A2 on Integration of SEA into plan and programme making which outlines the usual tasks in plan and programme making and illustrates how Protocol on SEA requirements - and possibly other relevant environmental considerations - can be integrated into this process. Recommendations contained therein can be used for consideration of relevant applicable requirements for Analysis and evaluation of the hazardous activities specified on the Annex V of the TEIA Convention within the context of land-use planning.

In terms of analytical approaches, of interest may be also Annex 5 with information on analytical tools such as overlay mapping and GIS, predictive and simulation modelling and scenario building. The participatory tools such as printed material inviting comments, displays and exhibits, information hotline/staffed telephone lines, internet/web-based consultations, questionnaires and response sheets, surveys, public hearings, workshops and advisory committee may be also of interest in the public participation processes related to land-use planning, siting and related safety aspects of hazardous activities.

Lastly, of interest may be also Annex 1 of the Manual that addresses the ways in the health-related issues can be considered during the application of the Protocol on SEA.

Due to its significant volume, the Resource Manual to Support Application of the Protocol on Strategic Environmental Assessment has been also published through a more simplified guidance on the application of the Protocol on SEA.

In February 2016, the UNECE published its latest guidance related to SEA - Good Practice Recommendations on Public Participation in SEA. This 27-page policy paper clarifies key obligations stipulated by the Protocol on SEA and offers many practical tips – such as guidance on what ‘effective public participation in the planning process may entail, what is the best timing of such process, how public participation could be organized at different stages of SEA, etc.. The guidance also draws attention to Participation of disenfranchised people and offers useful tips for organizing participation processes where the relevance of a plan or programme is not obvious. Lastly it concludes with recommendations for participation in a transboundary context. Overall, the guidance provides a very useful reading that may be interest not only to SEA practitioners but also to planners and other environmental professions.

## 4.3 Principles and guidelines on spatial planning under the Committee on Housing and Land Management

The UNECE is its advisory note on spatial planning<sup>8</sup> notes that the UNECE region continues to face significant local, transboundary and international environmental problems. These include also air and water pollution,

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<sup>8</sup> UNECE (2008) Spatial Planning Key Instrument for Development and Effective Governance with Special Reference to Countries in Transition. United Nations Economic Commission for Europe, Geneva, 2008

increased waste generation, technological hazards and risks to human health caused by harmful chemicals. Transition countries are facing the consequences of air, soil and water pollution due to the use of outdated industrial technologies and the lack of consistent environmental policies. In the Eastern Europe, Caucasus and Central Asia, the existence of contaminated sites continues to be a threat to the environment.

Environmental conditions within human settlements have become a central concern due to strong links between economic growth, poverty and the environment. Spatial planning provides a means of addressing these problems and can become one of the main instruments for protecting the environment and human health. To this end, land-use planning should utilize data sets that map the changes in land and property use, demographic change, social and economic activities, environmental quality and built fabric as well as environmental risk. It is of critical importance to understand how places are changing and what the causes (or drivers) of these changes are.

The HABITAT III Regional Report for the UNECE Region identifies common issues and challenges as well as formulates conclusions, future trends and scenarios, to inform the preparation of a new urban agenda in the context of Habitat III<sup>9</sup>. Different approaches to planning have been tested and implemented worldwide to deal with noise, congestion and pollution as well as climate change and resource depletion. The International Urban and Territorial Planning Guidelines<sup>10</sup> provides a reference framework for planning that deal with these challenges and is useful across a range of scales and adaptable to distinct regional, national and local contexts. The Spatial Guidelines<sup>11</sup> aim is raising awareness among the general public and politicians about the importance of spatial planning. This study identifies the role and benefits of spatial planning, the particular challenges vis-à-vis spatial planning that face countries in transition, its key principles, the division of roles and responsibilities, the main stages in the process of developing spatial plans, and finally, priority actions for countries in transition.

#### **4.4 Recommendations of the joint seminar on land-use planning around hazardous industrial sites**

The UNECE in its advisory note on spatial planning pointed out that the approach to addressing environmental risks in land-use planning should first be problem-oriented, so that significant issues and processes are identified as points for intervention and levers for change.

In order to facilitate a dialogue at international level aimed at building better understanding between stakeholders working on industrial safety and land use planning for ensuring safe neighbourhoods around major hazardous industrial facilities, a joint seminar on land use planning around hazardous industrial sites was in the framework of the Convention on the Transboundary Effects of Industrial Accidents and the Committee on Housing and Land Management (The Hague, 11-12 November 2010).

The seminar fostered a broader understanding on the priorities and interests the different stakeholders may have in the area of safety and land use planning as shown in Box 7.

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<sup>9</sup> Towards a city focused, people-centred and integrated approach to the new urban agenda (2016), <http://www.unece.org/housing-and-land-management/projects/habitat-iii-regional-report.html>

<sup>10</sup> International Guidelines on Urban and Territorial Planning (2015), <http://unhabitat.org/books/international-guidelines-on-urban-and-territorial-planning>

<sup>11</sup> Spatial Guidelines Key Instrument for Development and Effective Governance with Special Reference to Countries in Transition (2008), <http://www.unece.org/index.php?id=11127>

Box 7 Priorities and interests for the different stakeholders groups in the area of safety and land use planning as identified during the Joint 2010 The Hague seminar

- a. Safety authorities aim with their work at ensuring safe operation of industrial hazardous sites through enforcement of relevant major accident prevention policies. They seek to establish good level of cooperation with the operators of industrial sites, as well as to build safety culture;
- b. Land use planning authorities work towards ensuring effective use of land through guiding new developments including buildings of different functions and infrastructure. They aim at establishing good quality of living as well as good capacity for economic performance. At the same time industry's siting can be seen as a challenge due to its generating emissions, noise, risk with handling hazardous substances and/or transportation of dangerous goods.
- c. Industry is interested in producing its goods with an ultimate aim to make profit. At the same time, while running the business it complies with emission limit values, implements major accident prevention policy, carries out environmental impact assessment (EIA) for new developments or modernizations, is transparent in safety issues, feels part of the community and wants to be good neighbour. It expects to be informed on what is happening at the other side of the fence as well as anticipates approval by the communities to its plans for expansions;
- d. Real estate developers are interested in making with it high investments' returns and they take investment risk due to changing market or fluctuating prices.

The seminar concluded that safety aspects were not well integrated in land use planning and that cooperation was lacking between the main stakeholders. This situation was caused by only limited communication and no easy access to information. The participants pointed at lack of transparent procedures that should be contained in legislation and would give direct responsibilities to all the parties involved in the process of safety and land use planning. The seminar resulted in specific national and international level recommendations (see Box 8 below).

#### National level recommendations

- In order to ensure cooperation, countries should consider introducing transparent procedures that would impose cooperation or mandatory communication between parties involved in safety and land use planning at an early stage of any development. Alternatively a protocol setting obligation on 'who does what' should be introduced;
- Apart from procedures, protocols, etc. effective cooperation should be strengthened through organization of meetings for land use and safety agencies at national and local levels and aiming at building understanding and trust between them;
- In order to make easy access to information, Geographical Information Systems (GIS) should include risk assessments associated with the hazardous industrial sites, and/or databases with relevant information should be developed.
- Land use plans for areas in vicinities of hazardous industrial sites should be open for review by safety authorities before their approval.

#### International level recommendations:

- Having appreciated the joint seminar that brought together different stakeholders for the first time when discussing the safety and land use planning, the seminar's participants recognized the usefulness of the meeting and recommended that periodical meetings at international level be organized to discuss challenging cases in safety and land use planning and brainstorm on alternative developments scenarios, and through it identify possible solutions and learn from each other. Such meetings could involve serious gaming on land use and safety aspects;
- Criteria/standards for safety and land use planning incorporating long-term trends should be jointly developed by a group of safety and land use planning experts. These criteria/standards should consider different level of development by different countries;
- Publication containing best available practices on safety and land use planning and addressing clearly and simply the societal risks should be prepared;
- An advisory community on the web for discussing challenging cases could be considered.

This guidance contributes to addressing the recommendations, in particular regarding

- Supporting countries in introducing transparent procedures that would impose cooperation or mandatory communication between Parties to the relevant legal instruments involved in safety and land use planning at an early stage of any development
- Setting out criteria/standards for safety and land-use planning in the different countries of the UNECE region
- Presenting best available practices on safety and land-use planning.

## 4.5 European Union guidance

The European Commission has issued several guidance documents for the Directives related with the mitigation and prevention of industrial accidents. The following guidance documents are of interest with regard to the different aspects related with the assessment and management of industrial accidents risks.

### 4.5.1 Seveso Directive guidance

Several guidance documents and technical reports documenting the work carried out by EU Technical working groups on land-use planning are available on the implementation of the land-use planning and siting provisions under the Seveso Directive. These are:

- Land-Use Planning Accident Scenarios Handbook (2016)<sup>12</sup>
- Implementing Art.12 of the Seveso II Directive: Overview of Roadmaps for Land-use planning in selected Member States, EUR 23519 EN (2008)<sup>13</sup>
- Land use planning guidelines in the context of article 12 of the Seveso II directive 96/82/EC as amended by directive 105/2003/EC, also defining a technical database with risk data and risk scenarios, to be used for assessing the compatibility between Seveso establishments and residential and other sensitive areas listed in Article 12. EUR 22634 EN (2006)<sup>14</sup>
- Guidance on Land Use Planning as Required by Council Directive 96/82/EC (Seveso II), EUR 18695, EN (1999)<sup>15</sup>

Of particular interest are the following.

#### 4.5.1.1 Land-use planning accident scenarios handbook (2016)<sup>12</sup>

The purpose of this handbook is assisting the EU Member States in complying with the requirements of the Seveso Directive in the area of land-use planning and is aimed in particular at those countries without a consolidated framework to assess land-use planning cases. It analyses the activities that can support in a consistent manner land-use planning decisions through more transparent and open risk assessment approaches and use of data. The content of this handbook is the result of the collective work of the European Working Group on Land-Use Planning undertaken during several technical workshops and benchmarks.

The handbook presents the different methodologies, approaches, tools and criteria applied in the EU Member States along with real examples. It explains how selecting accident scenarios for land-use planning purposes and lists accident scenario trees for the most commonly used and relevant hazardous substances which can be applied too for generic flammable and toxic substances. The handbook presents and discusses the land-use planning results obtained by eight different teams from the application of the developed accident scenario trees for two fictitious hazardous sites. Finally, the handbook provides a list of possible causes of the identified major accidents and a non-exclusive list of applicable safety barriers.

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<sup>12</sup> Land-Use Planning Accident Scenarios Handbook (2016) Zsuzsanna Gyenes and Michael Struckl (in press at the time of writing)

<sup>13</sup> Implementing Art.12 of the Seveso II Directive: Overview of Roadmaps for Land-use planning in selected Member States, EUR 23519 EN (2008), Edited by Claudia Basta, Michael Struckl and Michalis Christou, <https://minerva.jrc.ec.europa.eu/EN/content/minerva/e4a15f3d-3069-4fb2-bae9-68296a0072a4/luproadmapsoverviewpdf>

<sup>14</sup> Land use planning guidelines in the context of article 12 of the Seveso II directive 96/82/EC as amended by directive 105/2003/EC, also defining a technical database with risk data and risk scenarios, to be used for assessing the compatibility between Seveso establishments and residential and other sensitive areas listed in Article 12. EUR 22634 EN (2006) Edited by M. D. Christou, M. Struckl and T. Biermann

<sup>15</sup> Guidance on Land Use Planning as Required by Council Directive 96/82/EC (Seveso II), EUR 18695, EN (1999), M. D. Christou and Sam Porter, EUR 18695 EN, <https://minerva.jrc.ec.europa.eu/EN/content/minerva/a0bf56b7-79a0-454e-a84a-02b6e0a2a990/lupguideseviipdf>

#### **4.5.1.2 Guidance on land use planning as required by Council Directive 96/82/EC (Seveso II) (1999)<sup>15</sup>**

This guidance was published three years after the Seveso II Directive adoption and its aim was to assist EU Member States with the interpretation of the requirements of Art. 12 of the Directive and, where relevant, on the provisions on land-use planning laid down within the UNECE Convention on the Transboundary Effects of Industrial Accidents. It also describes the provisions of Art. 13 concerning the rights of the public in information on hazard and risk and participation in the decision making process.

This guidance highlights that whereas the land-use planning provisions under the Seveso II Directive apply to all establishments (upper and lower tiers), the Industrial Accidents Convention only applies to upper tiers establishment capable of causing transboundary effects. However this difference is not relevant since the same risk analysis is employed as well for establishments within the territory of a country as for those able to lead to transboundary effects in case of accidents. This guideline also describes in more detail the three cases for which Art. 12 applies:

- the siting of new establishments;
- modifications to existing establishments covered by Art. 10;
- new urban and transport developments so that the risk or consequences of a major accident must not increase.

Moreover, a review of land-use planning approaches describes the main concepts (e.g. safety distances, consequence-based and risk-based approaches) applied in EU Member Countries along with some application examples. Also, a brief overview is provided about the land use planning in Australia, Canada and Russia.

#### **4.5.1.3 Implementing Art.12 of the Seveso II Directive: overview of roadmaps for land-use planning in selected Member States (2008)<sup>13</sup>**

The Major Accident Hazard Bureau at the EU DG Joint Research Centre (JRC) carried out in 2004 a state-of-the-art study on the implementation of Art. 12 within the EU Member States also with the help of an ad-hoc designed survey.

This technical report presents existing good practice in the context of land-use planning as well as highlights the differences on the methodological and procedural risk related aspects used in the EU Member States (UK, France, Germany, Italy, and The Netherlands) to support the implementation of Art 12. It introduces four different identified methodological land-use planning approaches along with the differences in the decision making procedures (including actors and related responsibilities). The report also provides so-called roadmaps describing the different decisional paths linking the risk assessment approaches in land-use planning with the procedural decision making phases.

#### **4.5.1.4 Land use planning guidelines in the context of article 12 of the Seveso II directive 96/82/EC as amended by Directive 105/2003/EC (2006)<sup>14</sup>**

Following the accidents in Enschede (2000) and Toulouse (2001), the Amendment Directive 2003/105/EC gave the mandate (Art.1, paragraph 7b) to the Commission to draw up by 31 December 2006 in close collaboration with the Member States the “guidelines defining a technical database with risk data and risk scenarios, to be used for assessing the compatibility between Seveso establishments and residential and other sensitive areas listed in Art.12”. This technical report describes the common elements to the different land-use planning methodologies in detail and

the functional requirements for the implementation of such database. Such database should contain elements and data which are common to the different land-use planning methodologies, including:

- accident scenarios;
- event frequencies;
- endpoint values for consequence assessment;
- technical measures to reduce the likelihood of an undesired event or limit the consequences.

The last parts of the report deals with environmental issues considering the European legislation on Strategic Environmental Assessment (Directive 2001/42/EC), and Environmental Impact Assessment (Directive 85/337/EEC). It recognizes that some methods in the context of these Directives could give additional information for land-use planning purposes. The conclusion reached after describing the current methodologies, risk indexes and tools used in the different countries for EIA, is that a uniform and comprehensive method is not yet available due to:

- advanced complexity of modelling;
- lack of data, with regards to response of environmental receptors to toxic loads;
- difficulty of modelling of the reactions within the components of the ecosystem.

Hence emphasis is usually put on the prevention phase, control of the potential routes of pollution and response measures, rather than to the development of a quantitative risk assessment approach.

#### 4.5.2 EIA Directive guidance

The European Commission has issued several guidance documents on EIA of which the following ones may be of interest with regard to assessment of risks of industrial accidents:

- Guidelines on the Assessment of Indirect and Cumulative Impacts as well as Impact interactions (05/1999)
- Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment (03/2013)
- Guidance on the Application of the Environmental Impact Assessment Procedure for Large-scale Transboundary Projects (05/2013)

For the sake of completion, it should be noted that the recent amendments of the EIA Directive through the Directive 2014/52/EU require the European Commission to provide guidance regarding the setting up of any coordinated or joint procedures for projects that are simultaneously subject to assessments under EIA Directive and Water Framework Directive (2000/60/EC)<sup>16</sup>, Industrial Emissions Directive (2010/75/EU)<sup>17</sup> and the Birds' Directive (2009/147/EC)<sup>18</sup>. This guidance is however not yet available. The following text summarizes key features of the above guidelines that have been issued so far.

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<sup>16</sup> Directive 2000/60/EC establishing a framework for the Community action in the field of water policy, <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0060>

<sup>17</sup> Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control)

<sup>18</sup> Directive 2009/147/EC on the conservation of wild birds, <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32010L0075>

#### **4.5.2.1 Guidelines on the Assessment of Indirect and Cumulative Impacts as well as Impact interactions<sup>19</sup>**

The “Guidelines on the Assessment of Indirect and Cumulative Impacts as well as Impact interactions” outlines basic situations where impact interactions should be considered within EIA (indirect impacts, cumulative impacts, synergistic impacts) suggested that these are addressed through Expert Opinions, Consultations and Questionnaires, Checklists, Spatial Analyses, Network and Systems Analyses, Matrices, Carrying Capacity Analyses, and Modelling). These methods are prosed for use through good-practice conventional impact assessments and may not capture the complex situations addressed in more complex approach to assessment of possible industrial risks.

#### **4.5.2.2 Guidance on the Application of the Environmental Impact Assessment Procedure for Large-scale Transboundary Projects<sup>20</sup>**

The “Guidance on the Application of the Environmental Impact Assessment Procedure for Large-scale Transboundary Projects” stresses out that the potential significant disaster risk implications related with the development of certain large-scale transboundary projects (e.g. pipelines, dams) have to be identified and assessed at an early stage. It is advisable that the EIA procedure considers the impact of the project on the exposure, vulnerability and resilience of the population, environment, material assets and economic activities to natural and man-made disasters (earthquakes, landslides, floods, extreme weather events, industrial accidents, etc.). Therefore, the environmental report may include an assessment of the natural and man-made disaster risks and risk of accidents and, where appropriate (i.e. if the impacts are significant and adverse), a description of the measures envisaged to prevent and manage such risks, as well as measures regarding preparedness for and response to emergencies. The guidance however does not specify how exactly such assessment should be conducted.

#### **4.5.2.3 Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment<sup>21</sup>**

The Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment aims to help Member States improve the way in which climate change and biodiversity are integrated into EIA processes. When addressing the climate-related matters, the guidance focuses primarily on considerations related to adaptation to changing climatic conditions. It suggests that that EIA processes consider longer-term climate scenarios, work with worst-case and best-case scenarios, acknowledge assumptions and the limitations of current knowledge and prepare for adaptive management. While EIA should focus on impacts of the project on the environment, these principles generally create a favourable framework for possible consideration of risks (e.g. risks of flooding of a facility due to extreme riverine floods or flash-floods, risks of heat stress during heat waves, etc.).

#### **4.5.2.4 Non-paper Guidelines for Project Managers: Making vulnerable investments climate resilient<sup>22</sup>**

Of interest may be also “Non-paper Guidelines for Project Managers: Making vulnerable investments climate resilient” prepared by DG Clima which provide practical tips for the elaboration of plans, programmes and projects that can be affected by the expected changes in the climatic conditions. These non-paper guidelines have some generic linkages to both planning processes and respective environmental assessments.

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19 EC DG XI Environment, Nuclear Safety & Civil Protection, Guidelines on the Assessment of Indirect and Cumulative Impacts as well as Impact interactions, NE80328/D1/3, 1999, <http://ec.europa.eu/environment/archives/eia/eia-studies-and-reports/pdf/guidel.pdf>

20 Guidance on the Application of the Environmental Impact Assessment Procedure for Large-scale Transboundary Projects, 2013, <http://ec.europa.eu/environment/eia/pdf/Transboundry%20EIA%20Guide.pdf>

21 Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment, 2013, <http://ec.europa.eu/environment/eia/pdf/EIA%20Guidance.pdf>

22 Non-paper Guidelines for Project Managers: Making vulnerable investments climate resilient (2011), [http://ec.europa.eu/clima/policies/adaptation/what/docs/non\\_paper\\_guidelines\\_project\\_managers\\_en.pdf](http://ec.europa.eu/clima/policies/adaptation/what/docs/non_paper_guidelines_project_managers_en.pdf)

It aims to help developers of physical assets and infrastructure incorporate resilience to current climate variability and future climate change within their projects. The guidelines explain when and how a project is considered vulnerable to climate variability and change, assess current and future climate risks to the success of the project, identify and appraise relevant and cost-effective adaptation options to build climate resilience, and integrate adaptation measures (resilience measures) into the project lifecycle. Module 4 of this Guidance (Assessment of risks) proposes a generic risk assessment approach based on assessment of the likelihoods and severities of the impacts associated with the hazards. This conceptual framework establishes a potential linkages to approaches used in assessment of industrial risks and accidents.

#### 4.5.3 SEA Directive guidance

The European Commission has so far issued two formal sets of guidance on the Strategic Environmental Assessment Directive:

- Guidance on the implementation of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (09/2003)<sup>23</sup>. It provides suggestions for practical interpretation of the various obligations codified in the SEA Directive, however does not deal with potential linkages to assessment of industrial accidents.
- Guidance on Integrating Climate Change and Biodiversity into Strategic Environmental Assessment (03/2013)<sup>24</sup>. This guidance basically provides nearly identical recommendations as those contained in the guidance for the EIA Directive processes described within Section 4.5.2.

#### 4.6 Guidance developed by ECE Member States

Beside international guidance, countries have developed own national guidelines related with land-use planning and siting of hazardous activities. Guidelines reported by the countries in the survey are listed Table 2.

Table 2 Available guidance reported in the survey

Country	SEA EIA	Industrial Accidents Convention Seveso Directive
Austria	Several guidance are available at <a href="http://www.strategischeumweltpruefung.at">www.strategischeumweltpruefung.at</a>	Guidance paper of the 9 Provinces concerning land use planning in the vicinity of Seveso sites
Belgium Flemish Region	No guidance	Guidance for safety reporting of upper tier Seveso companies available at <a href="http://www.lne.be/themas/veiligheidsrapportage/rlbvr">http://www.lne.be/themas/veiligheidsrapportage/rlbvr</a>
Cyprus	No guidance	Guidance available at <a href="http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/EEEEAA467BC3C3BA1C2257DDB00438745?OpenDocument">http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/EEEEAA467BC3C3BA1C2257DDB00438745?OpenDocument</a>
Denmark	Guidance available	Health risks associated with possible industrial accidents available at <a href="http://www2.mst.dk/udgiv/publikationer/2008/978-87-7052-814-6/pdf/978-87-7052-815-3.pdf">http://www2.mst.dk/udgiv/publikationer/2008/978-87-7052-814-6/pdf/978-87-7052-815-3.pdf</a> (available in Danish)

<sup>23</sup> Guidance on the implementation of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (2003), [http://ec.europa.eu/environment/archives/eia/pdf/030923\\_sea\\_guidance.pdf](http://ec.europa.eu/environment/archives/eia/pdf/030923_sea_guidance.pdf)

<sup>24</sup> Guidance on Integrating Climate Change and Biodiversity into Strategic Environmental Assessment (2013), <http://ec.europa.eu/environment/eia/pdf/SEA%20Guidance.pdf>

Country	SEA EIA	Industrial Accidents Convention Seveso Directive
Estonia	Handbook on environmental risk assessment (only in Estonian)	Methodology has been developed by Estonian Rescue Board for land use planning decision making (clear criteria for danger area and planned objects).
Germany	No guidance	Guidance KAS-18: Recommendations for separation distances between establishments covered by the Major Accidents Ordinance (Störfall-Verordnung) and areas worthy of protection within the framework of land-use planning  <a href="http://www.kas-bmu.de/publikationen/kas_gb/KAS-18k_en.pdf">http://www.kas-bmu.de/publikationen/kas_gb/KAS-18k_en.pdf</a> <a href="http://www.kas-bmu.de/publikationen/kas/KAS_18.pdf">http://www.kas-bmu.de/publikationen/kas/KAS_18.pdf</a> <a href="http://www.kas-bmu.de/publikationen/kas/KAS_18_ErsteKorrektur.pdf">http://www.kas-bmu.de/publikationen/kas/KAS_18_ErsteKorrektur.pdf</a> <a href="http://www.kas-bmu.de/publikationen/kas/KAS_18_ZweiteKorrektur.pdf">http://www.kas-bmu.de/publikationen/kas/KAS_18_ZweiteKorrektur.pdf</a> <a href="http://www.kas-bmu.de/publikationen/kas/KAS_32_2.pdf">http://www.kas-bmu.de/publikationen/kas/KAS_32_2.pdf</a>
Finland	No guidance	Guidance on “Siting of facilities” (only available in Finnish)
Israel	No guidance	The Safety Plan is mandatory and acts as a guide (s available only in Hebrew)
Latvia	Guidance available	Guidance available
Slovenia	No guidance	Uses Minimum Distance Decree
Sweden	Guidance on “Planning and risk management in connection to establishments with large scale chemicals”  <a href="https://www.msb.se/RibData/Filer/pdf/27588.pdf">https://www.msb.se/RibData/Filer/pdf/27588.pdf</a>	Guidance on “Accident risks and environmental impact assessment” available at <a href="https://www.msb.se/RibData/Filer/pdf/26494.pdf">https://www.msb.se/RibData/Filer/pdf/26494.pdf</a>
Netherlands	No guidance	Decree on External Safety of Installations (Besluit externe veiligheid inrichtingen – BEVI) 2004  Guidance on the Duty of Accountability for Societal Risk  Purple book
Poland	No guidance	Guidance available at <a href="http://www.gios.gov.pl/images/dokumenty/powpowa_a_warie/metodologia_20120131.pdf">http://www.gios.gov.pl/images/dokumenty/powpowa_a_warie/metodologia_20120131.pdf</a>  <a href="http://www.gios.gov.pl/images/dokumenty/powazne_a_warie/aktualizacja_20110325.pdf">http://www.gios.gov.pl/images/dokumenty/powazne_a_warie/aktualizacja_20110325.pdf</a> (update)
Portugal	Guideline on the integration of major accidents prevention in the SEA of land use municipal plans is available, (Guia para a integração da prevenção de acidentes graves na avaliação ambiental estratégica dos planos	Guidance available

Country	SEA EIA	Industrial Accidents Convention Seveso Directive
	municipais de ordenamento do território) available in in Portuguese only.	
United Kingdom	No guidance	Have several public guidance: Risk criteria for land-use planning in the vicinity of major industrial hazards 1989 PADHI guide available at <a href="http://www.hse.gov.uk/landuseplanning/methodology.pdf">http://www.hse.gov.uk/landuseplanning/methodology.pdf</a>  Internal to HSE Guidance “Planning Case Assessment Guide Chapter 0”

#### 4.7 Guidance on public information and participation

The Maastricht Recommendations on Promoting Effective Public Participation in Decision-making in Environmental Matters<sup>25</sup> were prepared by the Task Force on Public Participation in Decision-making under the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters and was adopted in January 2015.

The Recommendations provide guidance on implementing articles 6, 7 and 8 of the Convention, and especially how to address a number of key challenges identified by the Aarhus Convention Compliance Committee and others.

The Recommendations are divided into 4 chapters addressing General Recommendations as well as Public participation in decision-making on specific activities (article 6), Public participation concerning plans, programmes and policies (article 7) and Public participation during the preparation of executive regulations and laws (article 8).

Of relevance for the current Guidance are especially chapters dealing with Public participation in decision-making on specific activities (article 6) and participation concerning plans, programmes and policies (art.7).

<sup>25</sup>

[http://www.unece.org/fileadmin/DAM/env/pp/mop5/Documents/Post\\_session\\_docs/ece\\_mp.pp\\_2014\\_2\\_add.2\\_eng.pdf](http://www.unece.org/fileadmin/DAM/env/pp/mop5/Documents/Post_session_docs/ece_mp.pp_2014_2_add.2_eng.pdf)

## V Guidance on legal, procedural and administrative aspects

### General obligations and approaches to their implementation

1. The Industrial Accidents Convention requires (article 3 para 2) that Parties develop and implement policies and strategies for reducing the risks of industrial accidents and improving preventive, preparedness and response measures. To this end the Parties shall (article 3 para 4) take appropriate legislative, regulatory, administrative and financial measures for the prevention of, preparedness for and response to industrial accidents.
2. In implementing the above general obligations, as well as specific obligations stemming from article 7 of the Convention, most of the Parties seek to ensure that, in their land-use or other relevant policies and strategies referred to in article 3 paragraph 2, the objectives of preventing industrial accidents and limiting the consequences of such accidents for human beings and the environment are taken into account in particular through controls on:
  - a. the siting of new hazardous activities;
  - b. modifications to existing hazardous activities;
  - c. new developments including transport routes, locations of public use and residential areas in the vicinity of hazardous activities, where the siting or developments may be the source of or increase the risk or consequences of an industrial accident.
3. The obligations under the Industrial Accidents Convention related to prevention and emergency preparedness regarding industrial accidents, in particular the industrial accidents safety considerations, in order to be effective should be formally included into the land use planning and siting both at the stage of taking strategic decisions (in form of plans or programmes) and at the stage of taking permitting decisions authorizing concrete activities to be undertaken in concrete sites.
4. Formal inclusion referred to above may be achieved by various instruments, including both substantive and procedural obligations introduced into the land use planning and siting framework.
5. Substantive obligations may be included either in the binding normative acts or in the “soft” law instruments such as guidelines or guidance notes. Procedural obligations tend to be included in the binding normative acts.
6. Reliance only on substantive or only on procedural obligations may be not sufficient. Best results can be achieved when a combination of substantive and procedural obligations is applied.
7. Of key importance is comprehensive and effective flow of information between all stakeholders, including operators of hazardous activities, competent safety authorities, planning authorities and environmental and health authorities. This requires appropriate framework to be established for the provision of information between the Party of origin and affected Parties, provision of information to authorities and provision of information to the public.

### Substantive obligations

8. The obligations under the Industrial Accidents Convention related to the minimization of the risk to the population and the environment through siting decisions (Art. 7) in order to prevent industrial accidents (Art. 3, para 1) and ensure emergency preparedness (Art. 8) may be formally included into the decision-

making regarding land use by making a clear legal requirement that the land use or other relevant policies and strategies, as well as the decision-making procedures for implementing those policies and strategies in both the general plans and programmes and in specific decisions on siting, take account, inter alia, of the need, in the long term:

- a. To maintain appropriate safety distances between hazardous activities and residential areas, buildings and areas of public use, recreational areas and, as far as possible, major transport routes;
  - b. To protect areas of particular natural sensitivity or interest in the vicinity of hazardous activities, where appropriate through adequate safety distances or other relevant measures;
  - c. In the case of existing hazardous activities, to take additional technical measures necessary for the safe performance of the hazardous activity and for the prevention of industrial accidents so as not to increase the risks to human health and the environment
9. In order to make the above legal requirements operational in practice they might be supplemented, either in form of legal requirement or in form of guidance, with a reference to the matters set out in Annex V, paragraph 2, subparagraphs (1) to (8), and Annex VI of the Industrial Accidents Convention, which should be considered during the respective decision-making.
10. The above substantive obligations may be included into the respective decision-making in different way, in particular
- a. by making a clear legal requirement obligating planning authorities to address the above matters in their decisions
  - b. by making a clear legal requirement to address the above matters in the respective EIA/SEA procedures
  - c. by a combination of the two methods

#### Box 9 Inclusion of safety considerations into the stages of EIA/SEA procedures

In Bulgaria the Environmental Protection Act includes the legal requirement to necessary industrial accidents safety considerations in the respective environmental assessment (SEA or EIA). The Environmental Protection Act includes the main stages of the EIA procedure when the EIA procedures are coordinated with the new Seveso III Directive.

For a proper implementation of the provisions of art.104 of Environmental Protection Act a guidance letter (№ 05-08-6523/12.10.2015) was prepared by the Minister of Environment and Water addressed to the Directors of Regional Inspectorates of Environment and Water (RIEWs), which identifies what actions have to be carried out in the particular stages of SEA procedure of plans in order to ensure safe distances from /to enterprises/ facilities with low and high risk potential. The letter is published on the website of the Ministry of Environment and Waters.

11. Bearing in mind a standard practice in many countries that fulfilment of the substantive obligations must be reported in the statement of reasons and considerations on which the decision is based, it might be useful to introduce a special requirement to this effect to the respective legal schemes.

#### Procedural obligations

12. Procedural obligations aiming at ensuring that the industrial accidents safety considerations are formally included into the decision-making regarding land use may take different forms, for example
- a. by involving competent safety authorities directly into the decision-making
  - b. by involving competent safety authorities into the respective EIA/SEA procedures
  - c. by a combination of the two methods
13. National frameworks which include competent safety authorities into the land use procedures or respective

EIA/SEA procedures usually provide only a general reference to assure their involvement “where appropriate” without however specifying concrete criteria to be applied in order to determine this general reference. There are however examples of practical arrangements facilitating this approach by creating a procedural mechanism to determine situations in which involvement of competent safety authorities is compulsory (see Box 10)

**Box 10 Consultation with the competent safety authorities during siting of proposed developments in the vicinity of hazardous activities in the United Kingdom**

14.

Health and Safety Executive (HSE) serves as competent safety authorities in the United Kingdom.

The Town and Country Planning (Development Management Procedure) (England) Order 2015, the Town and Country Planning (Development Management Procedure) (Wales) Order 2012 and the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013 contain provisions requiring the Health and Safety Executive to be consulted regarding the safety implications of a proposed development where it is located in a specified zone (the ‘consultation distance’) in the vicinity of a major hazard site. The Planning (General Development Procedure) Order (Northern Ireland) 2015 (as amended by The Planning (Hazardous Substances) (No.2) Regulations (Northern Ireland) 2015) contains a similar provision in respect of the Health and Safety Executive Northern Ireland (HSENI)

The ‘area’ is notified by HSE to the planning authority so the Planning Authority knows to seek HSE’s advice when planning permission for specified development is applied for in that geographical area.

Setting up consultation areas is discretionary. Once a Planning Authority has been notified of a consultation area, then consultation with HSE is mandatory. In the legal framework, a consultation ‘area’ is referred to in Planning law. For example in mainland UK see The Town and Country Planning (Development Management Procedure) (England) Order 2015, Schedule 4 Consultations before the grant of permission, paragraph (e) “Development within an area which has been notified to the local planning authority by the Health and Safety Executive for the purpose of this provision because of the presence within the vicinity of toxic, ...” It is similar for Scotland, Wales and Northern Ireland.

When HSE has produced an ‘area’ after being consulted by a planning authority about an application related to hazardous substances consent, before notifying the planning authority of the area, HSE uses the zones within the area, to check compatibility of the consent with existing development in the vicinity.

b

ligations under the respective legal instruments to designate public authorities which, by reason of their specific environmental or health responsibilities should be consulted in the respective national SEA or EIA procedures it must be borne in mind that the competent safety authorities should be considered as having specific environmental responsibilities and therefore be consulted during respective EIA and SEA procedures.

15. According to SEA Protocol the environmental and health authorities must be consulted regarding screening (art.5.2) scoping (art 6.2) and draft plan or programme and the environmental report (art.9.2). The same approach, as a good practice, is taken in many national frameworks which require environmental and health authorities to be consulted also in all stages of the EIA procedure.

16. In the majority of national frameworks, the procedural involvement of the competent safety authorities in the decision-making regarding land use or in respective EIA or SEA procedures, if envisaged, is of consultative nature. There are however examples where their role is more prominent (see Box 11) which further assures inclusion of safety considerations into the respective procedures.

## Box 11 Role of competent safety authorities in the decision-making regarding land use in Estonia

The authority responsible in Estonia for implementing the obligations related to prevention and emergency preparedness regarding industrial accidents is Estonian Rescue Board – Crisis Management Department and regional/local rescue centres (Rescue Board).

Rescue Board is involved actively in siting and land-use procedures and related EIA and SEA process, including in screening and scoping. It has certain binding powers in this respect.

The comprehensive, special or detailed spatial plans (hereinafter plan) and building design documentation must be submitted to the Rescue Board for approval in the following events:

- 1) upon selection of the location of a new establishment;
- 2) upon expansion of the operations of an existing establishment or increasing production, provided that a plan needs to be initiated or amended or a building permit needs to be granted for such an activity;
- 3) upon planning an area located in the danger zone of a dangerous enterprise and of an enterprise with a major hazard or upon planning construction works there.

Upon approval, the Rescue Board assesses:

- 1) whether the plan or construction works increases the major-accident hazard or the severity of the consequences thereof;
- 2) whether the measures planned for prevention of an accident are sufficient;
- 3) before the establishment of the plan or granting of a building permit, the operator of the establishment must submit additional information to the local authority and to the Rescue Board.

The Rescue Board may refuse to grant its approval if the activity planned in the plan or in the building design documentation increases the risk of a major accident or the severity of the consequences thereof and the measures planned for the prevention of an accident are not sufficient.

### Screening

17. The SEA Directive specifically indicates possibility of accidents among the criteria for screening. The screening criteria under other instruments include a number of factors for which safety aspects of hazardous activities might be of relevance (for example: general reference to risk, setting the framework for projects or activities etc.) but such general reference may not always be sufficient and it might be useful to include a specific reference to the possibility of accidents among the criteria for screening also in a national EIA scheme.
18. The effectiveness of screening procedure may benefit if general reference among the screening criteria to possibility of accidents is supplemented with more specific criteria. Such criteria may be established either in the legislation or in any guidance notes. When establishing such specific criteria the matters indicated in Annex V and Annex VI to the Industrial Accidents Convention should be taken into account. They might be applied for this purpose both in case of siting of hazardous activities and in case of land use plans or siting of any other activities in the vicinity of hazardous activities.

## Box 12 Safety considerations as criteria for screening land-use plans determining the use of small areas at local level in Bulgaria

In Bulgaria the competent environmental authorities for SEA procedures regarding land use plans are Minister of Environment and Water /MoEW/(for plans adopted by central/national authorities and Directors of Regional Inspectorates of Environment and Water /RIEW/– for plans adopted at local level).

According to the guidance letter (N 05-08-6523/12.10.2015) the following test is to be carried out by the environmental authorities during screening:

### 1. For land use plans for sitting of enterprises / facilities with low and high risk potential:

- Check if there is EIA procedure carried out for the investment proposal for sitting of such facilities – if that is the case – check if within the EIA procedure is submitted and evaluated information about the dangerous substances, major accidents risks and measures for prevention, control and limitation of consequences of major accidents for the environment and human health;
- Check if there is approved safety report;
- Safety distances from the enterprise/facility to residential areas, buildings and areas of public use, recreational areas, neighboring enterprises and objects, areas and constructions that could be the source of or increase the risk or consequences of a major accident and cause domino effect, major transport routes and areas of particular conservation significance and environmental importance.

**If for the investment proposal for enterprise/facility is carried out the EIA procedure and above mentioned requirements are met**, the competent environmental authority informs the developer of the of the plan that the SEA procedure is not required (according to the provision in art. 91, para 2 of Environmental Protection Act - when the investment proposal included in Annex 1 and 2 of the Environmental Protection Act requires the preparation of a separate plan, the competent environmental authority may at the request of the developer or at its own discretion make only one of the assessments – EIA or SEA. The provision applies to the detailed land-use plans under the Territorial Development Act, which assign respective territories to implement a specific investment proposal in Annex 1 and 2 of the Environmental Protection Act.).

**If the requirements are not met** (there is no EIA procedure carried out or the other above mentioned requirements are not fulfilled) the competent environmental authority provides instructions for carrying out EIA procedure. The point is that this does not allow the adoption of a detailed development plan and land use change until ensuring of safety distances.

### 2. When the land use plan is for new residential areas, transport routes and areas of public use:

- The competent environmental authority provide information to the developer for the presence and location of the existing enterprises/facilities (if any) in the territory of the plan/plan modification or close to its borders, as an information about the risk potential of this/these enterprises/facilities, permitted activities and the type and maximum quantities of dangerous substances that are allowed. For the enterprises with high risk potential the competent environmental authority provides additional information to the developer about the parameters of spatial areas of high mortality and serious damages outside the boundaries of the enterprise in a major accident situation, identified and described in the approved safety report. This information should be used by the developer to ensure safety distances and monitoring measures;
- As a part of screening documentation from the developer should be submitted the following: to consider the location of the objects and facilities in the territory of the land use plan with the adopted safety distances, or – to identify safety distances if they are not adopted with the Municipal land use plan; as a part of the screening information, the developer should submit analysis of the expected adverse effects, resulting from the increasing of the risk and the consequences from major accident situation from existing enterprises/facilities with risk potential;
- At the stage of submitting of the screening information to the competent environmental authority, if there are special legislative requirements for safety distances for the enterprise/facility, documentation is sent for opinions to the competent authorities for constructions.
- The screening decision includes information on the accordance with the safety distances and if necessary – conditions and measures;
- Screening decision is a subject to public access and appealing.

19. Reference to the possibility of accidents as one of screening criteria might benefit from being supplemented by a legal requirement to indicate respective information in the screening document as for example the one which the developer is required to submit for the purpose of screening under article 4 para 4 of the EIA Directive.
20. The involvement of competent safety authorities in screening (see paras 15-17 above) might serve not only for the purpose of properly identifying activities that should be subject to assessment but also as a complementary measure to assist competent safety authorities in the identification of hazardous activities.
21. The screening criteria under the Espoo Convention or EIA Directive may be applied accordingly for the purpose of fulfilling the obligations under article 7 of the Industrial Accidents Convention related to determining “significance” of modifications.

### **Scoping and EIA/SEA documentation**

22. Adequate and sufficient consideration of safety issues in the respective decision-making related to land use requires relevant information to be provided to planning authorities. Important source of this information are the respective EIA/SEA reports provided scope of the information was adequately and sufficiently determined individually during scoping.
23. Proper determination of the scope of assessment in the EIA and SEA procedures depends on the information provided for the purpose. The requirements to be presented for the purpose of scoping determination are not regulated precisely by international instruments, only the EIA Directive indicates that it is based on the information provided by the developer in particular on the specific characteristics of the project, including its location and technical capacity, and its likely impact on the environment. In many countries however there are clear requirements in this respect.
24. In order to better include consideration of safety issues in the respective decision-making such requirements could be supplemented with a legal requirement to indicate respective information regarding safety issues which should be addressed.
25. Parties should consider introducing direct obligation to address safety aspects of hazardous activities into the environmental report.
26. Competent safety authorities should be involved both in scoping and in the review of the EIA or SEA reports.

### **Flow of information**

27. Bearing in mind that adequate flow of information is decisive to ensure that the objectives of preventing industrial accidents and limiting the consequences of such accidents for human beings and the environment are properly taken into account in the decision-making related to land use the procedures should be designed to ensure that operators provide sufficient information on the risks arising from the hazardous activity and that technical advice on those risks is available, either on a case-by-case or on a generic basis, when decisions are taken.
28. The competent safety authority, using the information received from the operators should be able to identify hazardous activities or their groups of where the risk or consequences of a major accident may be increased because of the geographical position and the proximity of such establishments, and their inventories of dangerous substances.

29. There should be appropriate mechanisms for regular provision of information between competent safety authorities and planning authorities, in particular regarding the issues mentioned in para 27 above as well as regarding contingency plans referred to in article 8 of the Industrial Accidents Convention and the information received pursuant transboundary consultations under article 4. Such mechanisms may be independent from the appropriate consultation procedures as required by applicable international instruments (see paras 15-17 above).
30. Proper quality of documentation used during respective procedures, in particular screening and scoping documents as well as EIA and SEE reports depends heavily on the availability of the relevant information. Bearing in mind that the preparers of the respective documentation, usually private consultants, rely mostly on publicly available information proper arrangements should be made to ensure that the relevant information, in particular the information referred to in Annex VIII to the Industrial Accidents Convention, is permanently available to the public, including in electronic databases which are easily accessible through public telecommunications networks. The information should be periodically reviewed and where necessary updated, including in the event of modifications to hazardous activities.

Table 3 outlines a few land-use planning practical tips on integration of Protocol on SEA obligations with those under Industrial Accidents Convention.

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Table 3 Overview of relevant provisions of the Protocol on SEA and the Industrial Accidents Convention on land-use planning, siting and modification of hazardous activities and their linkages

Provisions with logical linkages	Protocol on SEA	Industrial Accidents Convention	Commentary	Recommendation
1. Application to plans	Art 4.2 and 4.3: A strategic environmental assessment shall be carried out for plans and programmes which are prepared for (sectors mentioned) and which set the framework for future development consent for projects listed in annex I and any other project listed in annex II that requires an environmental impact assessment under national legislation	Within the framework of its legal system, the Party of origin shall, with the objective of minimizing the risk to the population and the environment of all affected Parties, seek the establishment of policies on the siting of new hazardous activities and on significant modifications to existing hazardous activities. Within the framework of their legal systems, the affected Parties shall seek the establishment of policies on significant developments in areas which could be affected by transboundary effects of an industrial accident arising out of a hazardous activity so as to minimize the risks involved. In elaborating and establishing these policies, the Parties should consider the matters set out in Annex V, paragraph 2, subparagraphs (1) to (8), and Annex VI hereto.	The SEA process should consider if the proposed plan or programme can influence or takes account of the hazardous activities addressed under the Industrial Accidents Convention.	<p>During determination whether the proposed plan or programme sets set the framework for future development listed in Annex I and any other project listed in Annex II of the Protocol on SEA, the list of Hazardous Activities as defined in Annex I to the Industrial Accidents Convention (as amended in December 2014) should be considered as well.</p> <p>This can be done by e.g. consultation with the nationally designated authorities for implementation of the Industrial Accidents Convention.</p>
2. Projects (Protocol on SEA) and Hazardous	Art 4.2 and 4.3: Projects listed in Annex I and Annex II that require EIA under national legislation.	“Hazardous activity” means any activity in which one or more hazardous substances are present or may be present in quantities at or in	Detailed information about newly proposed “hazardous activities” will most probably not be available in the SEA process for land-use plans – but	The SEA screening can be required to specify whether the proposed plan/programme addresses land-use related to existing or proposed

Provisions with logical linkages	Protocol on SEA	Industrial Accidents Convention	Commentary	Recommendation
Activities ( Industrial Accidents Convention)		excess of the threshold quantities listed in Annex I hereto, and which is capable of causing transboundary effects or which can cause Industrial accident resulting from an uncontrolled development in the course of any activity involving hazardous substances	the planning agencies can still be required to specify whether the proposed plan/programme addresses land-use related to existing or proposed installations or transportation routes where Industrial accident can happen.	installations (for example during manufacture, use, storage, handling, or disposal) or transportation routes for hazardous substances listed in Annex I of the Industrial Accidents Convention.  Again, this can be done by e.g. consultation with the nationally designated authorities for implementation of the Industrial Accidents Convention.
3. “Environmental, including health, effect” (Protocol on SEA)  “Effects” resulting from “Industrial accident” ( Industrial Accidents Convention)	“Environmental, including health, effect” means any effect on the environment, including human health, flora, fauna, biodiversity, soil, climate, air, water, landscape, natural sites, material assets, cultural heritage and the interaction among these factors. (Art 2.7) These effects should include secondary, cumulative, synergistic, short-, medium- and long-term, permanent and temporary, positive and negative effects (Annex IV, item 6).	“Effects” means any direct or indirect, immediate or delayed adverse consequences caused by an industrial accident on, inter alia: (i) Human beings, flora and fauna; (ii) Soil, water, air and landscape; (iii) The interaction between the factors in (i) and (ii) <sup>26</sup> .  “Industrial accident” is defined in the Convention as “an event resulting from an uncontrolled development in the course of any activity involving hazardous substances either:  • In an installation, for example	There are many mutual linkages “Industrial accident” under the Industrial Accidents Convention which could be considered as a subset of “Environmental, including health, effect” addressed by the Protocol on SEA.	If there is a coordinated or combined procedure, the effects covered under the Industrial Accidents Convention can reported along with the SEA Report (either separately or as part of it). They should be ideally at least summarized within the SEA Report in order to allow for more systematic consideration of these effects within the SEA process.

<sup>26</sup> An amendment to the Industrial Accidents Convention including on the definition of “effects” is being negotiated by Parties in the framework of the Working Group on Development and expected to be adopted by the Conference of the Parties at its ninth meeting (Slovenia, 28-30 November 2016). The agreed amended definition of “effects” reads as follows: “Effects” means any direct or indirect, immediate or delayed adverse consequences caused by an industrial accident on, inter alia: (i) Human beings, and biodiversity; (ii) Soil, water, air and landscape; (iii) Material assets and cultural heritage, including historical monuments; (iv) The interaction between the factors in (i), (ii) and (iii).

Provisions with logical linkages	Protocol on SEA	Industrial Accidents Convention	Commentary	Recommendation
		<p>during manufacture, use, storage, handling, or disposal; or</p> <ul style="list-style-type: none"> <li>• During transportation in so far as it is covered by paragraph 2 (d) of Article 2”</li> </ul>		
<p>4. Determination of the scope of the assessment (Protocol on SEA)</p> <p>Analysis and evaluation ( Industrial Accidents Convention)</p>	<p>Art. 6.1. Each Party shall establish arrangements for the determination of the relevant information to be included in the environmental report.</p> <p>Art. 6. 2. Each Party shall ensure that the environmental and health authorities are consulted when determining the relevant information to be included in the environmental report.</p>	<p>Art. 6.2. With regard to any hazardous activity, the Party of origin shall require the operator to demonstrate the safe performance of the hazardous activity by the provision of information such as basic details of the process, including but not limited to, analysis and evaluation as detailed in Annex V hereto.</p> <p>Annex V. item 1. The analysis and evaluation of the hazardous activity should be performed with a scope and to a depth which vary depending on the purpose for which they are carried out.</p>	<p>The Protocol on SEA explicitly requires consultation of the environmental and health authorities when determining the scope of the environmental report.</p> <p>Industrial Accidents Convention only requires analysis and evaluation of the hazardous activity should be performed with a scope and to a depth which vary depending on the purpose for which they are carried out. It does not specify who and how should determine this scope and depth.</p>	<p>If the SEA process addresses a proposed plan or programme that can influence the hazardous activities addressed under Industrial Accidents Convention (see item 1 of this table), the logical step would be to simply consult the nationally designated authorities for implementation of the Industrial Accidents Convention to determine what kind of information (including level of detail) from the Annex V should be provided to them as part of the plan or programme elaboration.</p> <p>This information can be then considered when determining the relevant information to be included in the environmental report in the SEA Process in order to maximize the linkages and reduce overlaps.</p>
<p>5. Environmental report (Protocol on SEA)</p>	<p>Annex IV: Environmental report:</p> <p>1. The contents and the main objectives of the plan or programme and its link with other plans or</p>	<p>Annex V. Analysis and evaluation</p> <p>(1) The quantities and properties of hazardous substances on the site;</p> <p>(2) Brief descriptive scenarios of a</p>	<p>There are many linkages in information to be provided for decision-making under Protocol on SEA and Industrial Accidents</p>	<p>Depending on the advice from scoping consultations with environmental and health authorities in SEA and with nationally designated authorities for</p>

Provisions with logical linkages	Protocol on SEA	Industrial Accidents Convention	Commentary	Recommendation
<p>Analysis and evaluation ( Industrial Accidents Convention)</p>	<p>programmes.</p> <p>2. The relevant aspects of the current state of the environment, including health, and the likely evolution thereof should the plan or programme not be implemented.</p> <p>3. The characteristics of the environment, including health, in areas likely to be significantly affected.</p> <p>4. The environmental, including health, problems which are relevant to the plan or programme.</p> <p>5. The environmental, including health, objectives established at international, national and other levels which are relevant to the plan or programme, and the ways in which these objectives and other environmental, including health, considerations have been taken into account during its preparation.</p> <p>6. The likely significant environmental, including health, effects.</p> <p>7. Measures to prevent, reduce or mitigate any significant adverse effects on the environment, including health, which may result from the implementation of the plan or programme.</p>	<p>representative sample of industrial accidents possibly arising from the hazardous activity, including an indication of the likelihood of each;</p> <p>(3) For each scenario: (a) The approximate quantity of a release;</p> <p>(b) The extent and severity of the resulting consequences both for people and for the non-human environment in favourable and unfavourable conditions, including the extent of resulting hazard zones;</p> <p>(c) The time-scale within which the industrial accident could develop from the initiating event;</p> <p>(d) Any action which could be taken to minimize the likelihood of escalation.</p> <p>(4) The size and distribution of the population in the vicinity, including any large concentrations of people potentially in the hazard zones;</p> <p>(5) The age, mobility and susceptibility of that population.</p> <p>(6) The severity of the harm inflicted on people and the environment, depending on the nature and circumstances of the release;</p> <p>(7) The distance from the location of</p>	<p>Convention [– the colours point out possibilities for at least cross-referencing. ]</p>	<p>implementation of the Industrial Accidents Convention, the proponent of the land-use plan may conduct SEA and analysis and evaluation of industrial accidents separately, concurrently or jointly – depending on depth of the assessment and arrangements used for conducting these studies. In any case, it would be useful to provide arrangements for sharing information generated and coordinating the recommendations for reducing the effects, safe distances, etc.</p>

Provisions with logical linkages	Protocol on SEA	Industrial Accidents Convention	Commentary	Recommendation
	<p>8. An outline of the reasons for selecting the alternatives dealt with and a description of how the assessment was undertaken including difficulties encountered in providing the information to be included such as technical deficiencies or lack of knowledge.</p> <p>9. Measures envisaged for monitoring environmental, including health, effects of the implementation of the plan or programme.</p> <p>10. The likely significant transboundary environmental, including health, effects.</p> <p>11. A non-technical summary of the information provided.</p>	<p>the hazardous activity at which harmful effects on people and the environment may reasonably occur in the event of an industrial accident;</p> <p>(8) The same information not only for the present situation but also for planned or reasonably foreseeable future developments.</p> <p>(9) The people who may be affected by an industrial accident.</p>		
6. Public participation	<p>Art. 8.2. Each Party, using electronic media or other appropriate means, shall ensure the timely public availability of the draft plan or programme and the environmental report.</p> <p>Art. 8.4. Each Party shall ensure that the public has the opportunity to express its opinion on the draft plan or programme and the environmental report within a reasonable time frame.</p>	<p>Art. 9.2. The Party of origin shall, in accordance with the provisions of this Convention and whenever possible and appropriate, give the public in the areas capable of being affected an opportunity to participate in relevant procedures with the aim of making known its views and concerns on prevention and preparedness measures, and shall ensure that the opportunity given to the public of the affected Party is equivalent to that</p>	<p>The Protocol on SEA required making the proposed plan or programme and the accompanying environmental report available for public comments.</p> <p>The Industrial Accidents Convention provide the public with an opportunity to participate in relevant procedures with the aim of making known its views and concerns on concerns on prevention and preparedness measures.</p>	<p>Obviously in case of land-use planning, it would be useful to have all information – the proposed plan or programme and the accompanying environmental report as well as the analysis and evaluation under Annex V. of the Industrial Accidents Convention available for public comments and use at least coordinated procedure (if not the same) for soliciting public feedback. Such approach may be based on</p>

Provisions with logical linkages	Protocol on SEA	Industrial Accidents Convention	Commentary	Recommendation
	<p>Art. 8.5. Each Party shall ensure that the detailed arrangements for informing the public and consulting the public concerned are determined and made publicly available. For this purpose, each Party shall take into account to the extent appropriate the elements listed in annex V.</p>	<p>given to the public of the Party of origin.</p> <p>Annex III. item 9: The Parties concerned shall inform the public in areas reasonably capable of being affected by the hazardous activity and shall arrange for the distribution of the analysis and evaluation documentation to it and to authorities in the relevant areas. The Parties shall ensure them an opportunity for making comments on, or objections to, the hazardous activity and shall arrange for their views to be submitted to the competent authority of the Party of origin.</p>		<p>Annex V of the Protocol on SEA and Annex VIII of the Industrial Accidents Convention.</p>
<p>7. Consultations with the relevant authorities</p>	<p>Art. 9. 2. The draft plan or programme and the environmental report shall be made available to the environmental and health authorities.</p> <p>Art. 9.3. Each Party shall ensure that environmental and health authorities are given, in an early, timely and effective manner, the opportunity to express their opinion on the draft plan or programme and the environmental report.</p>	<p>See the above requirements specified within Annex III. item 9 that require consultations with both the public and authorities in the relevant areas.</p>	<p>-</p>	<p>In order to facilitate information sharing, it may be useful to make the proposed plan or programme and the accompanying environmental report as well as the analysis and evaluation under Annex V. of the Industrial Accidents Convention available for comments by with the relevant environmental and health authorities and with nationally designated authorities for implementation of the Industrial Accidents Convention.</p>
<p>8. Decision-making</p>	<p>Art. 11. 1. Each Party shall ensure that when a plan or programme is adopted</p>	<p>Annex VI: The following illustrates the matters which should be</p>	<p>-</p>	<p>It would be useful if the decision-making on the proposed plan or</p>

Provisions with logical linkages	Protocol on SEA	Industrial Accidents Convention	Commentary	Recommendation
	<p>due account is taken of:</p> <p>(a) The conclusions of the environmental report;</p> <p>(b) The measures to prevent, reduce or mitigate the adverse effects identified in the environmental report; and</p> <p>(c) The comments received in accordance with articles 8 to 10.</p>	<p>considered in decision-making on siting:</p> <ol style="list-style-type: none"> <li>1. The results of risk analysis and evaluation, including an evaluation of the physical characteristics of the area in which the hazardous activity is being planned;</li> <li>2. The results of consultations and public participation processes;</li> <li>3. An analysis of the increase or decrease of the risk caused by any development in the territory of the affected Party in relation to an existing hazardous activity in the territory of the Party of origin;</li> <li>4. The evaluation of environmental risks, including any transboundary effects;</li> <li>5. An evaluation of the new hazardous activities which could be a source of risk;</li> <li>6. A consideration of the siting of new, and significant modifications to existing hazardous activities at a safe distance from existing centres of population, as well as the establishment of a safety area around hazardous activities, within such areas, developments which would increase</li> </ol>		<p>programme would address outcomes of any conducted analyses and consultations under the Industrial Accidents Convention along with the SEA Report and outcomes of consultations under the Protocol on SEA.</p>

Provisions with logical linkages	Protocol on SEA	Industrial Accidents Convention	Commentary	Recommendation
		the populations at risk, or otherwise increase the severity of the risk, should be closely examined.		
9. Information on decision	Art. 11.2. Each Party shall ensure that, when a plan or programme is adopted, the public, the relevant environmental and health authorities, and the Parties consulted through transboundary consultations are informed, and that the plan or programme is made available to them together with a statement summarizing how the environmental, including health, considerations have been integrated into it, how the comments received from consultations undertaken have been taken into account and the reasons for adopting it in the light of the reasonable alternatives considered.	Art. 9.1 The Parties shall ensure that adequate information is given to the public in the areas capable of being affected by an industrial accident arising out of a hazardous activity. This information shall be transmitted through such channels as the Parties deem appropriate, shall include the following elements contained in the Annex VIII:  1. The name of the company, address of the hazardous activity and identification by position held of the person giving the information;  2. An explanation in simple terms of the hazardous activity, including the risks;  3. The common names or the generic names or the general danger classification of the substances and preparations which are involved in the hazardous activity, with an indication of their principal dangerous characteristics;  4. General information resulting from an environmental impact assessment, if available and relevant;		It would be useful if the information on adopted plan or programme would provide coordinate information required in the Article 11.2 of the SEA protocol and Article 9.1 of the Industrial Accidents Convention.

Provisions with logical linkages	Protocol on SEA	Industrial Accidents Convention	Commentary	Recommendation
		<p>5. The general information relating to the nature of an industrial accident that could possibly occur in the hazardous activity, including its potential effects on the population and the environment;</p> <p>6. Adequate information on how the affected population will be warned and kept informed in the event of an industrial accident;</p> <p>7. Adequate information on the actions the affected population should take and on the behaviour they should adopt in the event of an industrial accident;</p> <p>8. Adequate information on arrangements made regarding the hazardous activity, including liaison with the emergency services, to deal with industrial accidents, to reduce the severity of the industrial accidents and to mitigate their effects;</p> <p>9. General information on the emergency services' off-site contingency plan, drawn up to cope with any off-site effects, including the transboundary effects of an industrial accident;</p> <p>10. General information on special</p>		

Provisions with logical linkages	Protocol on SEA	Industrial Accidents Convention	Commentary	Recommendation
		<p>requirements and conditions to which the hazardous activity is subject according to the relevant national regulations and/or administrative provisions, including licensing or authorization systems;</p> <p>11. Details of where further relevant information can be obtained.</p>		

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