


## Public information planning in the context of major accidents prevention

 11.01.2013

### Informování veřejnosti v kontextu prevence závažných havárií

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prevence závažných havárií

SEVESO

implementace

informovanost

### Abstract

A purpose of this article is to contribute to the question: "How the major accident safety information campaigns for the public have been made in recent years" with regard to legal requirements and regulations for measures to prevent or limit the consequences of serious chemical accidents. The regulations on the control of major accident hazards involving dangerous substances in Europe and in the Czech Republic involve public information planning with the purpose of making citizens aware of industrial risks, and possibilities to limit consequences of a major accident that have potential influence on public health, environment and assets, by implementing required behavior and safety measures. In this study we deal with the analysis of the Czech public information approach according to the EU legislative framework, and describe this approach using a set of examples. Our aim is to describe and compare the most important legislative regulations concerning the public information process and the measure of implementation of the EU regulations into Czech ones, and based on this comparison we point out the actual trend.

**Keywords:** information to the public, major accident prevention, Seveso II implementation

## Abstrakt

Účelem tohoto příspěvku je poskytnout informace k odpovědi na otázku: "Jak je v současnosti prováděno informování veřejnosti v oblasti prevence závažných havárií" s ohledem na zákonné požadavky a z nich vyplývající opatření k prevenci nebo omezení následků závažných chemických havárií. Předpisy k prevenci závažných havárií s přítomností nebezpečných chemických látek v Evropě i v České republice zahrnují informování obyvatelstva za účelem informování před možnými průmyslovými riziky a možnostmi omezení následků závažných havárií, které mohou ohrozit zdraví a životy lidí, životní prostředí nebo majetek, popisem požadovaného chování v případě havárie. V této studii je provedena analýza informování veřejnosti v České republice v kontextu legislativy EU a proveden popis českého přístupu s několika příklady. Naším cílem je provést popis nejdůležitějších právních předpisů týkajících se procesu informování veřejnosti a míry implementace předpisů EU do českých podmínek a na základě tohoto porovnání ukázat aktuální trend.

**Klíčová slova:** informování veřejnosti, prevence závažných havárií, implementace Sevesa II

## Introduction

Major accidents in chemical industry have occurred world-wide. In Europe, the Seveso accident prompted the adoption of legislation aimed at the prevention and control of such accidents. The resulting Seveso II Directive now applies to industrial establishments where dangerous substances are used or stored in large quantities, mainly in the chemicals, petrochemicals, storage, and metal refining sectors.

The Seveso II Directive gives to the public several rights in terms of access to information as well as in terms of consultation. Operators as well as public authorities have certain obligations to inform the public. Whereas passive information means permanent availability of information, i.e. that this information can be requested by the public, active information means that operators or competent authorities themselves need to be pro-active, for example through the distribution of leaflets or brochures informing the public about the behavior in the case of major accident.

Legislative requirements concerning informing of the public about risks involved in emergency situations in the Czech Republic are covered by three areas: (1) Crisis planning, (2) Prevention of serious accidents, and (3) Prevention of nuclear accidents. In order to better understand this division, it is useful to look at these three areas of public awareness from different points of view, for example according to emergency situation types, according to competencies of public authorities and local governments, etc. According to emergency situation types the public awareness can be divided to: (1) Crisis planning that includes natural and anthropogenic extraordinary events, (2) Prevention of serious accidents, including emergency situation risks, related to selected chemical substances and preparations, and (3) Prevention of nuclear accidents, including extraordinary event risks, related to ionizing radiation. Beyond the division according to emergency situation types, this division can be performed from the point of view of competencies of public authorities and local governments. (1) The area of crisis planning falls under the Ministry of Interior - General Directorate of the Czech Fire and Rescue Department (MV-GR HZS CR) and regional Fire and Rescue authorities (regional HZS). (2) Prevention of serious accidents falls under the Ministry of Environment (MZP) and regional authorities, and (3) the prevention of nuclear accidents falls under the State Office of Nuclear Safety (SUJB). Each of these areas includes specific emergency situations, falls under competencies of various state administration bodies, etc. As you can imagine from the above mentioned information, each of these areas has its own legislative framework that deals with informing public in a slightly different way. It is similar at the European level.

## Previous studies

Description of legislation development at the European level could be made on the basis of comparison SEVESO

Criteria	Legislation at the European level			
	82/501/EHS	96/82/ES	2003/105/ES	2012/18/EU
How	-	-	-	Article 13
About	-	Attachment V	Attachment V	Attachment V
Who	-	not specified	not specified	not specified
How often	-	every 5 years + actualization	every 5 years + actualization	every 1 years + actualization

**Table 1: Description of development in the informational area at the European level**

Based on the information in first three columns in Table 1 we can make four important partial conclusions from the point of view of informing of the public in the area of Emergency planning at the European level. **The first conclusion is** that the document 82/501/EEC generally sets the duty to inform that is generally repeated in the document updates, however, in none of them the specific form, how this information should be conveyed to the public, is set. Since there is no specific form at the European level, it is expected that it will not be set by the Czech legislation either. **The second conclusion is** that the document 82/501/EEC does not set the minimum content of the information intended for the public, and the present information content has not been changed since 1996. Therefore it is interesting to see how the Czech regulations react to this lack of change. **The third conclusion is** that the document 82/501/EEC does not appoint an information agent for cases of serious accidents. 14 years later the obligation to appoint a person that would convey information according to its position was set that is not further specified, however. **The fourth conclusion is** that the document 82/501/EEC does not set a time interval to provide and check the information. This time interval was set later by Article 13, Paragraph 1, of the 96/82/EC Guideline, and has not changed since. By summarizing the results of the European legislation development we can state that the information according to Attachment V, Guideline 2003/105/EC should be conveyed to the public by a more closely unspecified person at least every 5 years in a more closely unspecified form. In compare with the app. 10 years old legislative the item of information to the public as provided for in article 13 and according to Attachment V, Guideline 2012/18/EU from 2010 seems to be more suitable. It is divided into two parts concerned: (1) all establishments covered by this Directive and (2) upper-tier establishments, in addition to the information referred to in Part 1 of the Annex V. Document 2012/18/EU generally sets the duty to (a) inform all persons liable to be affected by a major accident receive regularly and in the most appropriate form, without their having to request it, information on safety measures and requisite behavior in the event of an accident; (b) the safety report is made available to the public upon request in the form of a nontechnical summary, which shall include at least general information on major accident hazards, potential effects and the requisite behavior in the event of an accident, shall be made available; (c) the inventory of dangerous substances is made available to the public concerned upon request. Member States shall ensure that the information referred to in Annex V is permanently available to the public, including in an electronic format. The information shall be reviewed and where necessary updated at least once a year.

Criteria	Legislation at the Czech Republic level		
	Notice no. 8/2000 Coll.	Notice no. 366/2004 Coll.	Notice no. 256/2006 Coll.

How	written form	written form	written form
About	Attachment n.6	Attachment n.5	Attachment n.7
Who	regional office	regional office	regional office
How often	every 5 years	every 5 years + actualization	every 5 years + actualization

**Table 2: Description of Development in the Informational Area at the Czech Republic Level**

In connection with Table 1, and based on the information from Table 2 the development in public information area at the Czech Republic level can be described and four important partial conclusions can be added. **The first conclusion** is that since 2000 informing of the public in the area of emergency planning should be done in the written form without further specification. As a possible trend after considering all consequences, knowledge from other areas can be utilized, for example the Crisis Act, in which the form of information is given by the Section 4, Par. 2 Letters a) to d). **The second conclusion** is that the minimum information content has changed after the revision of legal regulations in 2006 without regard to the lack of change in European legal regulations. Simplification of content of provided information can be traced as a possible trend. **The third conclusion** is that in relation to European legal regulations a specific institution was appointed – currently a Regional Office that has an obligation to process and provide public information in the area of emergency planning. At present time this obligation is met by cooperation with other subjects that provide the information, and that have to be specified according to the Paragraph no. 2, Attachment no. 7, Notice no. 256/2006 Coll. Clarification of information about subjects that provide information through the institutional level to individual persons' levels can be traced as a possible trend related to the European legislation. **The fourth conclusion** is that a regional office has a duty to update public information after each change in the object or device that influence or can influence safety beyond the object and device, at least once every 5 years, and to provide this updated information to the public. Recency of this information is reviewed every 3 years.

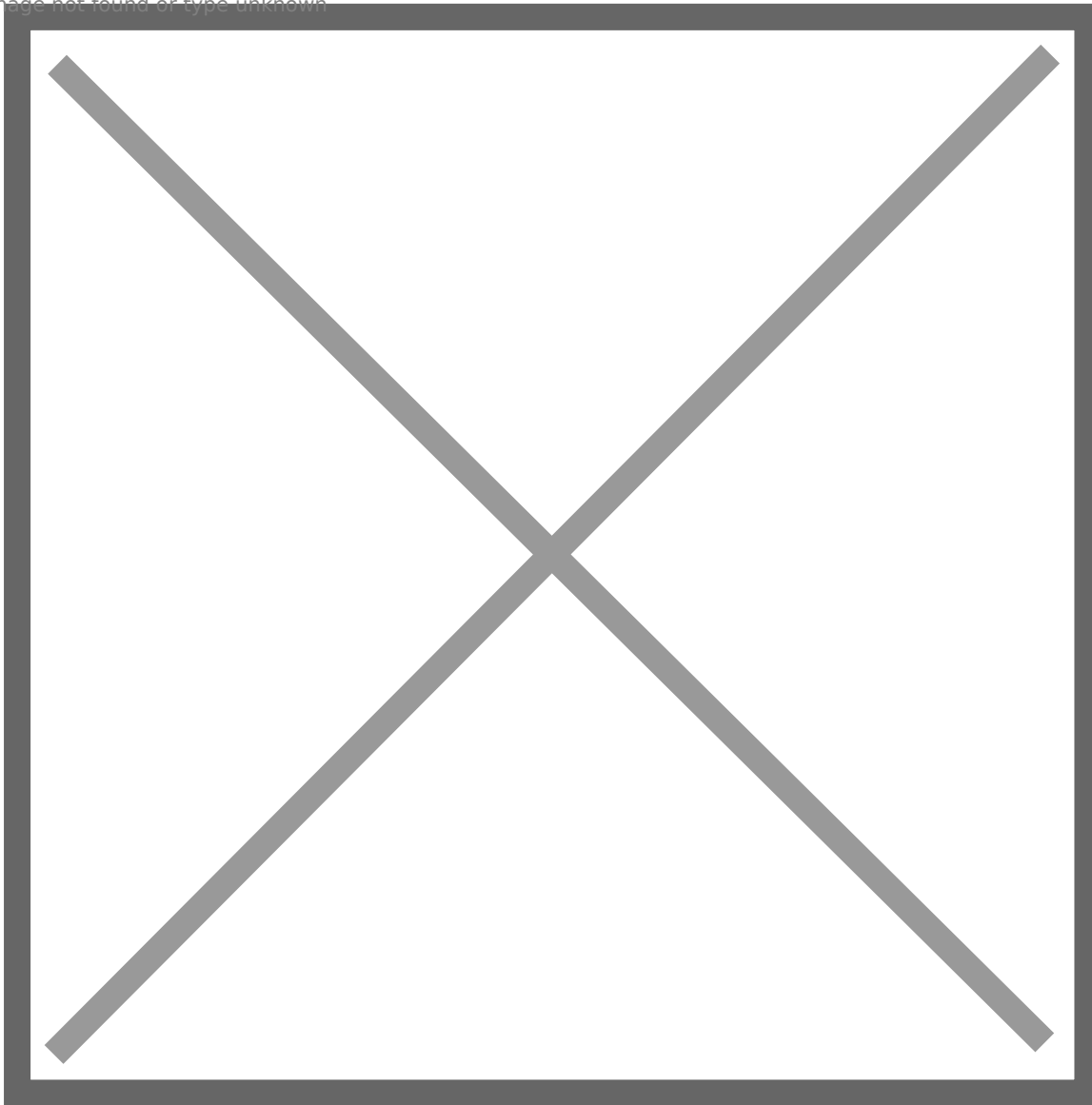
By summing the Czech legislation development, we will find out that information for the public, according to the Attachment no. 7, Notice no. 256/2006 Coll., should be provided to the public by a Regional Office at least every five years in a more closely unspecified form. The general description of the individual document content development can be supplemented by specific description of information implementation in the area of public informing that is the subject of the next chapter. The law no. 59/2006 Coll. concerns only industrial risks. Certain categories of technological activities are excluded from its content, especially because there already is a specific legislation for their control, and attempt to include them in the law no. 59/2006 Coll. could cause duplicity and legislative clashes. In the next part of this text we will look at the question of public informing strictly from the point of view of serious accidents, in this context, however, we will not grasp these problems as belonging to just one area, but as a part of the whole described above. Thus we will deal with informing of the public about dangers related to risks of selected chemical substances and preparations. Within thus defined framework we will then study the form and content of informing, and the current development of these questions from the point of view of the Czech legislation in relation to the European one, and compare theoretical knowledge with the selected and verifiable type of public informing that is used in practice.

## Analysis

This research was performed based on the data available on web pages of Regional Offices or regional fire departments only that is why it cannot be generalized. It can, however, be understood as evaluation of one part of the public informing system that uses mass information media. Based on the performed research results we can state that from the point of view of information required by the existing legal framework of the serious accident prevention

system, the studied materials should adhere to the content required by the structure of Attachment no. 7, Notice no. 256/2006 Coll. Although some sources specify formulations of the following type in writing: "*Information intended for the public in the area of emergency planning has been processed in agreement with the Notice no. 256/2006 Coll.*", the found information does not correspond in form or in content to the specified Notice. Generally it would be suitable to compare information materials with the Attachment no. 7 contents, and add missing data according to the structure prescribed by the Notice. Further in text there is some "confusing information", in other words, other data than required, which increases confusion in the text (it is less understandable). A serious problem that occurs practically in all materials is "*lack of references*" to literature, from which the information is taken, so their accuracy cannot be verified. The most serious problem appears to be "recency of information". **19 companies in 7 regions** have information on their web pages that was created **before 2006**; therefore it would be suitable to evaluate completeness of previously specified information in order to correspond to the existing Notice and reality. Summary of the most repeated mistakes represents a subjective evaluation, therefore it needs to be subjected to a critical analysis, and presented to the affected authorities for their opinion. The summary does not contain evaluation of relevance. Obsolescence of documents can negatively affect public knowledge of fundamental questions in case of a serious accident. Description of the status quo regarding the public information system in the area of emergency planning in individual regions that followed lawful requirements was performed. Based on the analysis of present state of legislative framework in the area of public information from the previous chapter, the information intended for the public should correspond as far as its content to the Attachment no. 7, Notice no. 256/2006 Coll., as amended. The evaluation was performed on the basis of agreement of information, available from public documents of individual regions for individual companies that have the obligation to set areas of emergency plans, to individual paragraphs of the Notice. Figure 1 shows color coded evaluation results in the form of "three grades". Regions, where the information is in agreement with the Notice, are marked as excellent and colored green. Regions, where the information for some companies is in agreement with the Notice, and in some is not, are marked orange. Regions, where the information is not in agreement with the Notice, are marked red. White color signifies the regions, where data needed for evaluation could not be found on web pages. Individual regions on Figure 1 are marked in green, orange, red or white color according to the fact, whether found public consumption information is in agreement with the current legislation, in other words, whether the requirements specified in the introduction to this chapter were met. Green marks the regions, where all found documents were processed according to the Law no. 59/2006, and the Notice no. 256/2006 attachment. Orange marks the regions, where a part of the found documents was processed in agreement with the Law no. 59/2006, and the Notice no. 256/2006, and a part of found documents was processed according to the invalid Law no. 353/1999, and the invalid Notice no. 366/2004. Red marks the regions, where found documents were processed only according to the invalid Law no. 353/1999, and the invalid Notice no. 366/2004. White marks the regions, where the documents with information for public consumption were not found. Beyond the agreement with valid legislation a recency criterion was considered by introducing small and capital letters and the minus sign. Capital letters in Figure 1 symbolize a region, e.g. the letter "T" signifies the Moravian-Silesian region, the letter "A" the Prague region, etc. These letters follow official markings of regions that can be found on car license plates for example. In some regions *information for public* from more companies was evaluated, and some of it met the criterion of agreement with valid legislation and some not.

Image not found or type unknown



**Figure 1: Recency and Validity of the Legislative Concerning Public Informing in Individual Regions**

For these regions the marking was done in the form  $cX^a-$ , where the letter "c" marks the total number of companies in the region, for which the *information for public* was found, and the letter "a" signifies the number of companies, for which the *information for public* was found, however, this information followed invalid legislation, the "-" sign signifies that this information is not up-to-date. For example, in the Moravian-Silesian region the Regional Office web pages listed documents with public information in the emergency planning area for the following companies: BorsodChem MCHZ, s.r.o. (2008), BorsodChem MCHZ, s.r.o. (2006), OKD, OKK, a.s. - Koksovna Jan Sverma (2006), OKD, OKK, a.s. - Koksovna Svoboda (2008), Primagas s.r.o - Horní Sucha (2010), Trinecke zelezarny a.s. (2003), Energetika Trinec a.s. (2003) a Linde Technoplyn a.s. (2003). The total number of companies in the region, for which this *information for public* was found is 8 (the letter "c = 8"). For Trinecke zelezarny a.s., Energetika Trinec a.s. and Linde Technoplyn a.s. [\[1\]](#) this information was processed according to the Law no. 353/1999 Coll., and divided according to the Notice no. 366/2004 Coll., i.e. invalid (updated since) legal regulations (the letter "a = 3"), and all three documents were published in 2003, and were **not updated** since the ("**-**" sign). The Southern Moravia and Usti regions were marked similarly. After evaluation of the recency criterion we can return to the introduction of this chapter that shortly summarizes requirements for the information, specifically to **Paragraph 2, Section 25 of the Law no. 59/2006 Coll.,**

and the following quote: “... *at least once every 5 years* ...” that practically means, if we consider that the present legislation that concerns public informing in the area of emergency planning is from 2006, that in the year  $2006+5=$  **2011** all documents concerning these matters available at regional offices should be updated, which is also supported by the quote “...*recency of this information shall be reviewed every 3 years....*”.

## Conclusion

The main goal of this section was to give a complete explanation of the valid European and Czech legislation, and to describe current status and trends in the area of *public information in the areas of emergency planning within the serious accident prevention system*. Fulfillment of this goal was divided into several steps. The first solution step includes description, comparison, and evaluation of contents of Czech and European legal regulation parts that deal with public informing. The second step describes the status quo, i.e. information that can be obtained from publicly available pages of Regional Offices and regional fire and rescue departments. This part also evaluates the study goal. We have described and compared European and Czech legal acts that concern informing of the public. The summary chronologically lists individual legal acts that create the framework of public informing, and shortly describes contents of the parts that concern public informing. It displays mutual relationships of European and Czech legal regulations, together with the rate of implementation of EU legal acts into the Czech legislation. The trend that concerns the legislative area related to public informing in the area of emergency planning is described last.

Also description of status quo of the public informing system was performed based on the research of publically available documents of Regional Offices and fire and rescue departments, and the recency and agreement of this information with valid legislation was evaluated.

Comparative analysis of legislative requirements and status quo can be performed based on the study of available information listed above, provided that all conditions of this study were met. We have described and compared all legal acts that concerned informing of the public on the European and also the Czech level.

By comparison of publicly available information in the area of emergency planning with the valid legislation framework on pages of Regional Offices we have found and described several shortcomings.

Based on the summary of the first part it can be suggested that these questions could be solved from the point of view of serious accident prevention, in the whole crisis planning + emergency planning context described in the beginning of the document, not from the point of all three areas without framework limitation of individual duties and differentiation of the way and content of informing, as these questions are handled in some publications (Mika, 2010).

Based on the summary of the second part it can be suggested that the research results are sent to Regional Office addresses specified in the public informing documents in the area of emergency planning for evaluation, and recency of the public information are evaluated. Based on both summaries and by repetition of both major requirements, i.e. that public information should be processed according to valid legislation and updated; the description of status quo in public informing is thus finished. The next sub-chapter shortly outlines, how the status quo description could be continued. In connection to further study, the next part of the document discusses the depth and addition to necessary knowledge that the public should have in the area of emergency planning.

Results of this analysis cannot be generalized, however, further study can be recommended. Based on the summary of previous parts and based on the partial conclusion it can be suggested that the mentioned study be controlled by sending the results to individual Regional Offices<sup>[2]</sup>.

Another recommendation is to evaluate awareness in other information areas, e.g. in the areas of crisis management and nuclear accident prevention, by using knowledge and practical experience of the Czech Central Fire and Rescue

Service. Based on obtained knowledge an overall study that would point out overlaps or shortcomings in the information area, i.e. how the areas of serious accident prevention, nuclear accident prevention, and crisis management supplement each other or overlap in the area of public informing about emergency planning should be performed. A survey of public awareness in the form of questionnaires should be performed, which would augment the theoretical study by data from the highest possible number of people in the highest possible number of areas of emergency planning.

Based on all these results general recommendations for improvement of the awareness system in case of serious accident within the serious accident prevention system should be proposed. The improvement could be formulated as a thesis topic for example for the field of emergency planning or crisis management in schools focused on serious accident risk prevention, as was the case in the theses (Drábková, 2009), (Šiška, 2010), (Hanuška, 2012). Results of other studies could open an expert discussion on the topic of quality of public awareness in the area of emergency planning.

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## Acknowledgement

The authors gratefully acknowledge the financial support from the Ministry of Interior of the Czech Republic provided via project no. VG20112013069 - Optimization of emergency planning zone and emergency plans creation based on harmful effects of dangerous chemicals released during major accidents with respect to improvement of civil protection.

[1] All the evaluated data are available as supplementary material upon request to the corresponding authors.

[2] The Law no. 59/2006 Coll., or the Notice no. 256/2006 Coll., does not require having the information publically available on web pages, but if this information is thus published, it should be correct and updated, since it loses its meaning otherwise.

## Vzorová citace

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