

UNIFIED SYSTEM OF LEGAL INSTRUMENTS AIMED THE PREVENTION OF AND PREPAREDNESS FOR THE MAJOR INDUSTRIAL ACCIDENTS

Lajos KATAI-URBAN
katoi.lajos@uni-nke.hu

Abstract

The Hungarian legal regulation on industrial safety getting into force on 1-st of January 2012. covers the tasks of the protection of major industrial accidents involving dangerous substances. The system of tasks and measures arises from the implementation of the legal regulation can be divided into three groups: prevention and preparedness period; the (emergency) response period, and the recovery period. In this article the author will deal with the unified system of legal instruments and devices established in the field of prevention of and preparedness for the major industrial accidents in Hungary.

Key words

Industrial Safety, Major Industrial Accidents, Dangerous Establishments, Legal Regulation, Legal Instruments.

Introduction

The industrial safety laws (considered as the third branch of disaster management besides civil protection and fire safety) put in force on January 1, 2012 covers the protection against major accidents involving dangerous substances and the protection of transports of dangerous goods, vital systems and installations, and performance of the tasks of nuclear safety.

Development of regulation of industrial safety in the disaster management system has a 15 years history in Hungary.

Based on the law and profession history analyses (Kátai-Urbán L. 2014), the uniform industrial safety laws enacted between 2010-2012 are mainly built on the legal, institute and tool system for defense against major accidents in relation to dangerous substances, whose basic purpose is control and supervision of the establishments that handle dangerous substances (hereinafter dangerous establishment). The purpose of the regulations is a higher level protection of human life and health, and the environment of the dangerous establishment.

The system of execution of the protection tasks against major accidents is basically divided to three periods: period of prevention and preparation, period of defense (emergency management) and the period of restoration, elimination of the consequences.

In this article, after definition of technical scientific concept of "industrial safety" as an independent safety branch, and "analysis of vulnerability from industrial safety aspects", I will methodize the legal institutes and system of tools of the compliance of the legal regulations during the prevention and preparation period.

The contents of industrial safety specialist tasks – theoretical approach

Industrial safety is built on a specific Hungarian system of laws and institutes in close relationship with formation of the international and European Union laws, the industrial safety

vulnerability in Hungary, the development of safety culture in Hungary, and creation of a uniform disaster management system in Hungary what is considered unique even according to international standards.

First I intend to explain the concept of industrial safety, what has been created in Hungary mainly as a consequence of formation of regulations of protection against major accidents involving dangerous substances. It is useful to look back to the technical scientific development after the Second World War if we intend to define this term.

Development of science resulted in accelerated expansion of several industrial branches (traffic, motorization, petrol-chemistry, nuclear power) in our century, especially after the Second World War, and it caused some irresolvable environmental problems, and also caused new ones. Naturally, industrial development has its limitations, and the load-resistance of our settlements is not infinite. A generally used term was invented to solve the problem at the beginning of the eighties: sustainable development and environment safety. Industrial safety is a state where the probability of occurrence of harmful incidents caused by the society with a harmful impact on the environment, and the disasters caused by technical sources is reduced to minimum by appropriate measures, and the damages caused by catastrophes are managed so that the impact may not endanger the quality of the natural environment and health of the population.

Environment safety and its concept shall be limited from "safety in industry" or "industrial safety", and I did it as follows.

The dangerous activities performed in the industrial (partially agricultural and commercial) establishments have harmful effects to the life, human health, material assets and environment. Several kinds of horizontal regulations (safety branches) were developed in order to prevent the dangerous impacts and to mitigate the harmful effects. Here we have to separate the categories of internal and external emergency measures. The concept categories of internal and external emergency measures are used in the member states of the European Union. Additionally, we must identify the connection of the regulations for protection against major industrial accidents to the safety branches (Kátai-Urbán L. 2015).

When we make difference between internal and external emergency measures, we must differentiate the fire safety and labor safety regulations from the industrial safety, what mainly consists of external emergency, and chemical safety measures (environment-health). The base of such differentiation is the "fence" of the dangerous establishment, what clearly defines the limits of competence of the executing organizations. The internal emergency measures are mainly involved in protection of the life and health of the workers, while the external emergency measures manage protection of the population and the environment elements (material assets).

The separation is not perfect because there may be overlaps. Naturally, external emergency measures are not possible without control of the internal measures. The external emergency plans are based on the contents of the internal emergency plans. The first point of prevention of the internal impacts is the safety management system operated in the dangerous establishment.

The so called external emergency measures manage protection of the life and health of the population and the elements of the environment. Protection against major industrial accidents basically belongs to the external emergency measures. The purpose of this field of law may be defined based on the dangerous substance emission types of the dangerous technologies, divided in two main groups: (1) normal operation and (2) emergency emissions:

The emissions during normal operation are long term emissions of dangerous activities with environment load, environment impact, and the prevention of their contamination at a large area with long term environment modifying or environment damaging effects, and their

recovery belong to the scope of environment protection. Protection against the environment damaging effects that harm human life and the environmental conditions of life quality belong to tasks of the environment health (chemical safety).

The emergency emissions result in emission of significant quantities of dangerous (mainly toxic) substances, fire or explosion, and they are dangers caused by an emergency situation what risks the establishment inside or directly outside, or seriously endangers or harms human life, health or the elements of the environment with a slow effect. Protection against (major) industrial accidents and the branch of industrial safety manages prevention of these effects and protection against their harmful consequences. The serious environment damages that reach the level of an emergency belong under the scope of protection against environment disasters (environment protection), while protection against the disastrous health impacts of major industrial accidents belongs under the disaster-medicine (Kátai-Urbán L. 2015).

Separation of the above categories is the result of theoretical examinations. However, it can be applied for examination of the adequacy of the allocation of tasks and competences according to the present regulations.

In a closer definition, the regulations of protection against (major) industrial accidents is identified as a branch of the industrial safety in relation to the dangerous activities that belong under the scope of the regulations. In a broader term, the scope of concept of the industrial safety (from disaster management aspects) also includes ensuring the high level safety of transportation and logistics activities of dangerous goods between the installed dangerous establishments. The nuclear installations are considered as special dangerous activities, and the disaster management tasks in relation to their safety also belong to the industrial safety branch. Professional supervision of the prevention and emergency response activities concerning breakdowns of vital systems and installations are the latest industrial safety tasks.

Safe operation of the dangerous activities supervised by the industrial safety is supported by the authority and supervisory activities of several related safety branches and their cooperation in the emergency measures, such as joint work of technical safety, industrial health, environment protection, labor safety, mine safety, chemical safety and other establishment-specific cooperating state authorities and policing organizations. Coordination of the activities of these authorities is also a task of the industrial safety tasks in the period of prevention, protection (emergency management) and recovery.

Therefore, the concept of "industrial safety" as an independent safety branch is this: *"All the dangerous activity (dangerous establishment) specific legal institutes and systems of tasks, procedures and tools, or methodologies that are used through compliance of the operator, authority, and local governments tasks in relation to the protection against major accidents involving dangerous substances, to transportation of dangerous goods, emergency responses to nuclear accidents, and safety of vital systems and installations for sake of high level protection of the life and health of the population, the environment and the assets and services that are necessary for survival."* (Kátai-Urbán L. 2015)

Definition of the concept of "vulnerability for the purpose of industrial safety" comes from the conclusion of the above concept, what is the following according to my researches: *"Vulnerability for the purpose of industrial safety" means the hazards caused by the dangerous activities supervised by the industrial safety branch; to be more precise, the hazards caused by the establishments handling dangerous substances, the establishments under the tier, the unplanned incidents of nuclear installations, and by breakdown of vital systems and installations."* (Kátai-Urbán L. 2015)

The concept of "legal regulations of industrial safety" could be defined as follows, based on the above logics: *"a special section of the disaster management regulations (field of laws) that includes the most important elements of the system of tasks of fire safety and civil protection especially in terms of the preparation and accident prevention measures, and whose*

purpose is prevention of the impacts occurring because of major accidents, incidents, and breakdown of vital system elements, and also mitigation and response to the possible consequences.” (Káтай-Urbán L. 2015)

General system of implementation of the disaster management tasks

The system of implementation of the disaster management tasks is basically divided to three periods: period of prevention and preparation, period of protection (emergency management) and the period of restoration, elimination of the consequences. The following table summarizes the authority tasks in the various periods of protection against major accidents.

*Table 1
System of disaster management tasks concerning protection against major accidents
(Káтай-Urbán L. 2015)*

| Period | Tasks |
|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Period of prevention and preparation to protection | <ul style="list-style-type: none"> - Approximation and codification of laws; - institute development activities; - implementation of the regulations: operation of the authority licensing and supervisory control system, performing the related disaster management tasks; - collection and coding of the implementation experiences; - performing the related civil protection tasks: establishment and preparations of the civil protection organizations; training and practicing of the participants of the protection; preparation of the population. |
| The period of protection and reduction of the consequences (emergency management) | <ul style="list-style-type: none"> - Qualification of the occurred incident; - alarming and information of the public; - alarming the organizations participating in the protection; - introduction of immediate measures in relation to protection; - operation of operative staff and centers of emergency management; - participation in the work of the protection committees; - implementation of the information obligations due to international treaties; origination of aid activities as necessary. |
| Period of restoration and elimination of the consequences | <ul style="list-style-type: none"> - Ensuring basic life support of the population; - temporary restoration of the damaged public utilities; - cooperation in the mitigation tasks; - participation in surveying of the damages; - participation in distribution of the aids. |

The prevention legal institutes and measures of the legislation and the applied system of tools

The legal institutes, the necessary tasks (measures) and the applied system of tools of the legislation about protection against major accidents can be categorized in three main groups based on the period when the tasks are performed. These are:

- a) the prevention and preparation period;
- b) the emergency management (accident response) period; and
- c) the recovery period.

The operator and authority prevention and preparation measures of the laws concerning defense against major accidents are basically categorized in two groups:

- prevention measures, that serve to eliminate occurrence of a major accident or incident,
- and the consequence mitigating (preparatory type) measures intend to reduce or eliminate the effects of an already occurred incident.

In the following parts, I will examine and digest the tasks to be performed in the preventing and preparation period.

The preventive legal institutes on the operator side are the design, technical, organizational and management measures that eliminate occurrence of major accidents, while the measures of the authority licensing and supervisory system are used on the authority side. The success of preventive measures mainly depends on the quality of execution of the obligations of the operator and the efficiency of the application of industrial safety laws by the authorities.

The followings are the preventive legal institutes and tools on the operator side:

- Identification of and notification about the dangerous activity;
- compilation of the safety documents (safety report, safety analysis and major emergency management plan) and its submission for authority judgment;
- regular and occasional inspection of the safety analysis and report;
- inspection of the major emergency management plant;
- introduction and operation of safety management system in an upper tier dangerous establishment;
- introduction and operation of a safety management system in a lower tier and below tier dangerous establishment.

The followings are industrial safety authority prevention activities of disaster management:

- Authority licensing and inspection tasks;
- authority control activities;
- sanction activities;
- operation of the authority registry and informatory system (Kátai-Urbán L., 2014a).

Figure 1 shows the prevention and preparation legal institute system of the operator and industrial safety authority, as they are built on each other.

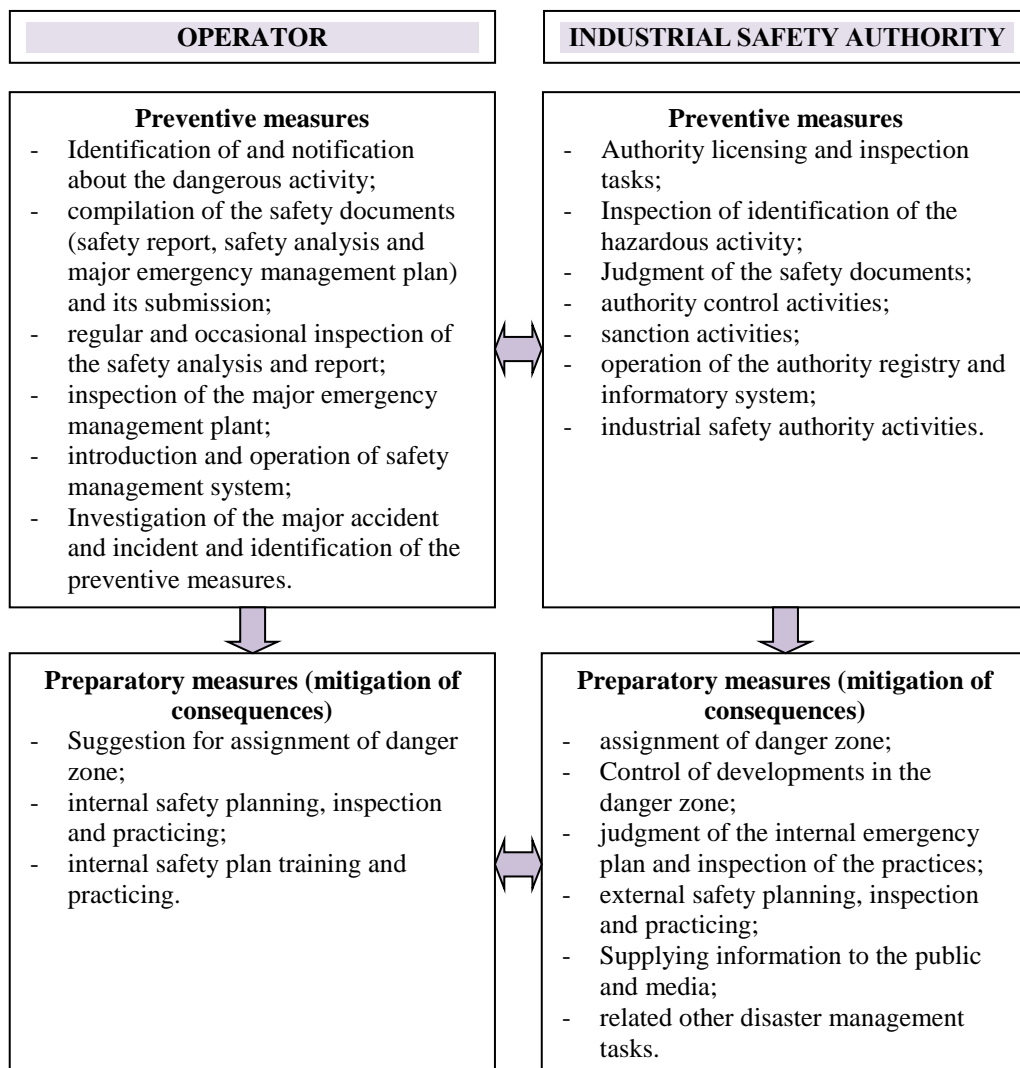


Figure 1
System of the prevention and preparation measures of the operator and authority
(Kátai-Urbán L. 2015)

- a) Identification and notification about the dangerous activity, categorization of the establishment, obligation to compile safety documents

Identification of the dangerous activity is a basic requirement of implementation of the laws. It is regulated based on the list of materials detailed in Appendix 1 of the implementing statute and their interpretative provisions. The chemical safety law regulates the registry, hazard categorization and packing of dangerous substances and preparations.

The operators of under tier establishments are obliged to registration. Based on the criteria specified by the applicable government decree, the authority may oblige the operator to compile a major emergency management plant and may request compilation of external

emergency plans concerning the endangered settlements (Kátaí-Urbán Lajos - Vass Gyula, 2014).

The operator of an establishment that reaches the lower tier but does not reach the upper tier, shall prepare a safety analysis according to the regulations. The operator proves in the safety analysis that he introduced appropriate targets, management system and protection tasks for sake of high level protection of the population and the environment.

The operator of an upper tier dangerous industrial establishment that reaches or exceeds the upper tier shall compile a safety report. The safety report is a basic document that constitutes the base of every activity of an operator of an upper tier dangerous industrial establishment concerning prevention of and protection against the major accidents (Kátaí-Urbán L. 2014b).

The following table shows the obligation to compile documents depending on the state of the operator:

Table 2
Documentation system for prevention of major industrial accidents
(Kátaí-Urbán L. 2015)

| Lower tier establishment | Low tier dangerous industrial establishment handling dangerous substances | Upper tier dangerous industrial establishment handling dangerous substances |
|----------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| - | Safety analysis | Safety report |
| Major emergency management plan | Internal emergency plan | |
| External emergency plan based on an authority resolution | External emergency plan | |
| - | Land-use plan | |
| Based on the Act on catastrophes | Seveso II. According to the directive | |

b) Authority licensing activities

An important, (preventive type) requirement of the regulations is the legal institute of authority license concerning the dangerous activities.

The authority is a regional organization of the professional disaster management organizations. According to the laws on disaster management, an installation license can be issued about an establishment or an installation handling dangerous substances only based on a disaster management license of a regional organization of the professional disaster management organizations (hereinafter: authority). A dangerous activity can be performed only in possession of a disaster management license of the authority.

The operator shall enclose the safety report or the safety analysis to the application for a disaster management license, what is necessary for the installation licensing procedure and for performing the dangerous activity. The major accident preventing and managing requirements of the safety analysis and report concerning dangerous substances shall be determined so they are able to ensure a high level protection of health and environment. For this purpose, it shall

contain a concept of the resources and tools for protection and the organizational and management system.

The operator of an industrial establishment under the tier shall report his activities involving dangerous substances to the authority in a form and with the data contents as specified by a separate regulation. The operator shall prepare a major emergency management plan what will be evaluated by the authority, and he will decide about issuing a disaster management license.

The purpose and core of the activity of the authority is to judge whether the information supplied by the operator are truthful, whether he did everything in order to prevent major accidents and to reduce their harmful effects, and especially, whether the safety level of the establishment conforms to the requirements (Káta-Urbán L. at all).

c) Authority control activities

The authority will make authority inspections with the frequency specified by the statutes for conformity to the obligations specified by the laws and the authority resolutions in order to prevent major accidents involving dangerous substances. The authority coordinates the authority inspections of the organizations performing authority tasks of a branch (associate authorities) concerning the establishments that belong under the scope of Chapter IV; in frames of such activity, he makes recommendations for the associate authorities about performing the authority inspections and organizes joint inspections by involvement of several associate authorities.

The major who is competent according to the location of the establishment handling dangerous substances shall cooperate with the operator and the authority based on the regulations of the applicable statute to ensure the population can express his opinion before issuing a license about installation of the new establishment handling dangerous substances or about major modifications in the operation of an already operating establishment handling dangerous substances. (Cimer Zs. - Szakál B. 2014.)

d) Sanction activities

If the operator does not fulfill his obligations concerning safe operation and a serious deficiency occurs in the conditions of safe operation then the authority will inhibit the dangerous operation by withdrawal of the license.

The authority is authorized to impose a disaster management penalty in case of performing an activity with license requirement without possession of a disaster management license, in case of omission of the requirements specified by Chapter IV of the Act on catastrophes and its regulatory statutes, or by the authority resolutions concluded based on them, or in case of omission obligation of a preventive, management or recovery measure concerning a major accident or incident in relation to dangerous activities.

e) Compilation, review and judgment of safety documents

The operator attaches the document containing the safety analysis or the safety report to the notification about the dangerous activity or to his application for a license about installation of a new establishment handling dangerous substances. The operator describes his main targets in the safety analysis or the safety report concerning prevention of major accidents and the protection against its impacts, and also describes the system of tools the organization and management system in the company that guarantees high level protection of people and the environment.

The authority checks the truthfulness of the safety analysis and the safety report by site inspection and may require additional information as necessary. If the measures planned by the

operator do not conform to the actual dangerous effect, then the authority will require additional measures from the operator in order to prevent major accidents or for protection against them.

The operator revises the safety analysis and the safety report regularly but minimum in every five years. He reviews the safety analysis and the safety report at any time if changes are done in the establishment that may have an effect to reduce the risk of major accidents or that involve the conditions of protection. The operator sends the protocol of such reviews to the authority immediately. If the safety analysis or the safety report requires modification as a consequence of such a review then the operator shall send the modified part of the safety analysis or the safety report, or the complete safety analysis or the safety report including the modifications in case of significant changes to the authority within the deadline specified by the resolution. (Cimer Zs. - Szakál B. 2015)

The safety analysis and the safety report contains the main targets of the operator concerning prevention of major accidents and protection against already occurred accidents, and the principles concerning prevention of major accidents and protection against already occurred accidents.

The major emergency management plan contains an analysis of the dangerous effects of the establishment and the order and conditions of the measures of prevention and management of major accidents involving dangerous substances, and the measures for mitigation of their effects. Description of the management system to ensure prevention and management of major accidents involving dangerous substances.

The operator revises the major emergency management plan regularly but minimum in every three years. He reviews the major emergency management plan at any time if changes are done in the establishment that may have an effect to reduce the risk of major accidents or that involve the conditions of protection. The operator sends the protocol of such reviews to the authority immediately.

If the major emergency management plan requires modification as a consequence of such a review then the operator shall send the modified part of the major emergency management plan, or the complete major emergency management plan including the modifications in case of significant changes to the authority within the deadline specified by the resolution. (Kátai-Urbán L. - Vass Gy., 2014)

f) Introduction and operation of safety management system

The operator of an upper tier industrial establishment handling dangerous substances creates a safety management system as part of his safety report. Description of the safety management system is integral part of the safety report. The operator integrates the safety management system in the general management system of the establishment handling dangerous substances. The operator shall describe the organizational structure of the safety management system in his safety report. The description specifies the persons at every level of the organization involved in management and execution of the prevention of and protection against accidents involving dangerous substances, and also their tasks and scopes, the requirements and resources that are necessary for their education.

Based on the results of the performed hazard identification and risk analysis, the operator forms or reviews the norms of the safety management system, or completes it as necessary: he elaborates, completes and applies the technology descriptions, instructions and other regulations that are applicable to a safe plant.

He also involves the executing personnel in the definition of the norms in the areas and in the magnitude as they are involved. He ensures appropriate conditions and training for them. He shall also consider the normal operation technologies, the shutdowns, startups, the maintenance of equipment and process emergencies in his instruction system. He shall inform the persons involved in the above activities about the requirements of the safety management system.

The operator shall pay attention to the changes performed in the equipment, storing facilities and production. He must consider the safety aspects of these changes in advance during the planning and installation of the changes.

The operator elaborates methods for continuous examination of achievement of the targets set for prevention of major accidents in relation to dangerous materials and he acts according to these plans. He continually evaluates the state of execution of the prevention related tasks. He reveals the deficiencies, and invents methods to eliminate them.

The tasks also involve the reporting system what is used by the operator to inform about the major accidents or incidents in relation to dangerous substances. Those accident cases shall be handled separately in the reports that show a deficiency of the safety system. He must reveal the background of such cases, evaluate its experiences, conclude the consequences, and take measures about the tasks that are necessary for prevention or emergency response.

If the operator attaches a certificate of a (competent and internationally accepted) quality certifying organization about the safety management system when he sends the safety report to the authority then he does not have to send the description of the safety management system, but they shall be available in case of a request by the authority (Kátai-Urbán L. - Vass Gy., 2014).

The preparatory (consequence mitigating) legal institutes and measures

The preparatory type legal institutes on the operator side are mainly the community development obligations and the internal protection, planning, inspection and practicing obligations and tasks of the establishment. Preparation and review of the settlement external emergency plan is a task of the authority.

a) Land-use planning, assignment of the danger zones and inspection of the developments

At the same time as the acceptance of the safety report or the safety analysis, the authority assigns in the disaster management license the boundaries of the danger zone around the establishment handling dangerous substances in order to reduce the consequences of a major accident. The developments may be limited within the danger zone, and civil protection measures can be specified as specified by the applicable laws. The authority informs the competent Mayor's Office about the boundaries of the danger zone, and he initiates indication of the boundaries of the danger zone in the community development plan.

The authority judges based on the establishments handling dangerous substances and other installations and buildings within the danger zone (in addition to the number, location, and protection of people living in the danger zone, and to the community development elements) whether it is possible to approve in the danger zone: to install a new establishment handling dangerous substances, or extension of an existing establishment handling dangerous substances in such a degree that requires compilation of a safety report or a safety analysis. The authority judges the development of road, railway and public utility network and other investments or developments.

The authority forms a committee from the members of the representatives of the regional public health administration, the competent environment protection, nature preservation and water authority, the establishment handling dangerous substances and the Mayor's Office involved by the submission, in order to conclude a resolution concerning the development in the danger zone based on a request of the Mayor's Office. The committee expresses his opinion about the planned developments in the danger zone with respect to the posed dangers (Kátai-Urbán L. 2015).

b) Internal emergency planning, inspection and practicing

The operator of the establishment handling dangerous substances shall compile an internal emergency plan in order to eliminate the consequence of the dangers listed in the safety report or in the safety analysis. The internal emergency plan is a document of the operator that controls execution of the measures for prevention of occurrence of major accidents in relation to dangerous substances, the response to such accidents, the measures for mitigation of their consequences, the order and conditions of execution of the notification, alarm and training tasks in the establishment or installation handling dangerous substances. The operator must ensure the conditions of execution of the tasks specified by the internal emergency plan.

The operator must regularly inspect the feasibility of the stipulations specified by the internal emergency plan. For this purpose, he performs a practice every year when they practice in a part of the organization covered by the plan, and every three years when they practice in all of the organizations covered by the plan (Kátai-Urbán L. 2015).

c) Judgment of the internal emergency plan and inspection of the practices

The authority inspects the internal emergency plan submitted the operator. During this procedure, he examines whether the protection measures specified in the internal emergency plan are proportional to the dangerous effects determined by the safety report or the safety analysis, and besides it examines whether the prerequisites of execution of the tasks specified by the planned measures are available. The authority also checks the reality of the tasks and conditions by a site inspection (by organization of a training).

d) External emergency planning, inspection and practicing

An external emergency plan shall be compiled within 6 months after approval of the safety documents in order to defend the endangered settlements against the dangerous effects described in the safety report of the establishment handling dangerous substances, or in the safety analysis based on the decision of the authority, or in the major emergency management plant.

The external emergency plans are compiled by the local organization of the professional disaster management organization with cooperation of the Mayor's Office of the endangered settlements. The ambulance, police, the public health administration organization of Budapest and the regional government office, the competent environment protection, nature preservation and water authority also participates in the preparation of the external emergency plan and they express their opinion about it. The content requirements of the External emergency plans and the deadlines of their compilation are stipulated by Attachment 9 of the applicable Government Decree. The expenses of compilation of the External emergency plans and their practices are covered by the own budget of the central organization of the professional disaster management organization. (Endrődi I. 2015)

In case of an establishment handling upper tier dangerous substances, the Mayor's Office publishes an announcement about the external emergency plan for 21 days according to the stipulations of Point 6 in Attachment 10 of the applicable Government Decree; the population can comment it during this period. The Mayor's Office sends the comments of himself and the public about the external emergency plan to the local organization of the authority within 8 days after completion of the public announcement. The local organization of the professional disaster management organization sends his opinion about the comments and the external emergency plan amended based on the comments to the local organization of the authority within 20 days after completion of the public announcement.

The authority examines the external emergency plan after he has received it and then sends his opinion to the local organization of the professional disaster management organization

who in turn compiles the external emergency plan based on the comments, in cooperation with the Mayor's Office.

The local organization of the authority sends the approved external emergency plan to the organizations listed in this paragraph.

If it is necessary to compile an external emergency plan about the settlement involved by a lower tier dangerous establishment or an establishment under the tier then the authority informs the Mayor's Office and the competent local organization of the professional disaster management organization about it. The external emergency plan is compiled according to the content and form requirements as specified by chapter 9 of the applicable government decree, without an announcement and without organizing a public hearing.

An external emergency plan is compiled also in the case if the dangerous effects of several establishments handling dangerous substances or establishments under the tier may reach the settlement.

The external emergency plan shall be revised and amended as necessary minimum every three years, or after the approval of the new or modified safety report, safety analysis or major emergency management plant by the authority.

The authority will regularly inspect the feasibility of the stipulations specified by the external emergency plan in cooperation with the competent Mayor's Office. For this purpose, he performs a practice every year when they practice in a part of the organization covered by the plan, and every three years when they practice in all of the organizations covered by the plan (Káta-Urbán L. 2015).

e) Supplying information to the public and media

The authority compiles an informative publication in cooperation with the Mayor's Office of the settlement endangered by the upper tier dangerous industrial establishment, at the same time as the external emergency plan is approved. In this, he informs people and public institutions about the establishment handling dangerous substances, about the possible major accidents involving dangerous substances or about an incident involving dangerous substances, and about the possibilities of protection against them. The publication is compiled based on the safety report and the external emergency plan, in a plain language. The Mayor's Office arranges publishing the publication. The publication is revised immediately after a modification of the safety report or the external emergency plan, but minimum every three years. The publication shall be published again whenever it is necessary, but minimum every five years.

The Mayor's Office publishes an announcement by the usual local method within 15 days after receiving the safety report from the authority. The safety report shall be available for anyone in full length for 21 days after publishing the announcement. The local people can make their comments during this period. The Mayor's Office (if it organizes a public hearing) sends the comments of himself and the public to the authority minimum 5 days before the date of the public hearing.

The Mayor's Office organizes a public hearing when a new dangerous establishment handling dangerous substance is installed or when the activity of an already operating establishment is modified. The Mayor's Office is obliged to hold the public hearing within 15 days after publishing the announcement. The Mayor's Office invites the operator, the authority and the associate authorities, the involved civil organizations who announced their intention to participate, and also the representative of the military base located in the endangered settlement to the public hearing (Káta-Urbán L. 2015).

f) Execution of the related other disaster management tasks

Additionally, the authority must make the risk analysis of the settlement, and then the disaster management categorization of the settlement and compilation of the emergency

management plans. He can enroll the citizens to civil protection organizations due to their civil protection obligations so that the Mayor's Office can mobilize them if necessary.

He must provide the civil protection organizations for the emergency both in theory and in practice. At the moment there are national, regional, settlement and factory civil protection organizations in Hungary.

Introduction of the civil protection measures is also a task of the authority and he performs it by personal, collective, local and remote protection means. Maintenance of the announcement systems and appropriate information of the population is also important.

Conclusions

I gave a brief historic review in this article about the preliminaries of elaboration of the present industrial safety system such as the changes of legal regulations of the inspection of the dangerous establishments, the continuous improvements of the system of institute, and the experiences of introduction of the execution measures.

I summarized some results of creation of the regulations, the introduction of system of tools in the first part, where I tried to define several new concepts, and tried to establish them scientifically.

I studied and evaluated the authority licensing and inspection institute system of the legislation concerning the protection against the major accidents and the system of procedures and means of application of law by the authority. My main task was systematization of the preventive and preparatory legal institutes and the system of tools of the safety of dangerous establishments.

References

- [1] CIMER, Zs., B. SZAKÁL. Major Disaster Recovery Plans. *The Science for Population Protection*. 2014, Vol. 6, No. 1, pp. 71-76. ISSN 1803-568X.
- [2] CIMER, Zs., B. SZAKÁL. Control of Major-accidents Involving Dangerous Substances. Relating to Combined Terminals. *The Science for Population Protection*. 2015, Vol. 7, No. 1, pp. 41-51. ISSN 1803-568X.
- [3] ENDRÓDI, I. *Polgári védelmi tudományos problémák kutatási eredményeinek összefoglalása (Summary of the Research Results for the Civil Protection Scientific Problems)*. Budapest: Nemzeti Közszolgálati Egyetem (National University of Public Service), 2015. 82 p.
- [4] KÁTAI-URBÁN, L. Establishment and Operation of the System for Industrial Safety within the Hungarian Disaster Management. *ECOTERRA: Journal of Environmental Research and Protection*. 2014, 11: (2), pp. 27-45. ISSN 1584-7071.
- [5] KÁTAI-URBÁN, L. *Veszélyes üzemekkel kapcsolatos iparbiztonsági jog-, intézmény és eszközrendszer fejlesztése Magyarországon (Development of Legal, institution and Imlementarion System related to the Dangerous Establishments)*. Budapest: Nemzeti Közszolgálati Egyetem, 2015. 89 p. ISBN 978-615-5057-52-6.
- [6] KÁTAI-URBÁN, L. A súlyos ipari balesetek elleni védekezésről szóló jogi szabályozás fejlesztési folyamatának értékelése (Analyses of the Development Process of the Legal Regulation on the Prevention of Major Industrial Accidents). *Bolyai Szemle*. 2014: 4, pp. 115-126. ISSN 1416-1443.
- [7] KÁTAI-URBÁN, L., Gy. VASS. *Kézikönyv a veszélyes üzemek biztonságsszervezésével kapcsolatos alapfeladatok teljesítéséhez (Handbook for Implementation of Basic Tasks*

- related to the Safety Management of Dangerous Establishments*). Budapest: Nemzeti Közszolgálati Egyetem, 2014. 60 p. ISBN 978-615-5491-72-6.
- [8] KÁTAI-URBÁN, L. *Handbook for the Implementation of the Basic Tasks of the Hungarian Regulation on „Industrial Safety”*. Budapest: Nemzeti Közszolgálati Egyetem, 2014. 73 p. ISBN 978-615-5491-70-2.
- [9] KÁTAI-URBÁN, L. et al. Iparbiztonság Magyarországon (Industrial Safety in Hungary). *Védelem Online: TŰZ- ÉS Katasztrófavédelmi Szakkönyvtár*. 2015, 22: (1), Paper 549. 12 p.