

Electronic portal for occupational health and safety management on building site

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Summary

In the paper is presented an internet information application, which is intended mainly to construction managers in order to support and help in health and safety on building site problems performing. The portal provides to its user the survey of health and safety management on building site centre fields main terminology, survey of obligatory legislation, but mainly survey of particular procession steps destined into right managing of these fields, as well as survey of obligatory health and safety documentation, what can help to construction manager in everyday work on building site in managing, controlling and surveying the health and safety state on building site. The portal also presents the communicational channel interposing the transfer of health and safety management outputs from building contractor company level into building environs in documentation form of real construction offer.

KEYWORDS: occupational health and safety management, portal, building site, construction, company, construction manager, tool

1. INTRODUCTION

The building industry belongs surely to traditionally high risk sectors from the point of work injuries statistics. In case of small and medium building companies is even accident rate in Slovak republic few ten percents bigger as the average in other European Union states is. It is concerned exactly the companies, in which occupational health and safety (OHS) field is not managed completion ally, it means, that for ensuring of employees safety and health protection are mostly performed only some activities, most often only work accidents investigation and trainings.

The purpose of the thesis, of which one of the outputs is presented in the article, was rivet into occupational health and safety management system especially in small and medium building industries, those amounts is the biggest in business subjects of this field in Slovak republic.



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2. PURPOSE AND ROLE OF THE ELECTRONIC WORK PORTAL

The electronic work portal is an internet application, which is dedicated mainly to construction managers and foremen, as building contractor representatives, for support and help in health and safety tasks during building realization performance and secondly to safety coordinator, person which is entrusted by the project investor, the person who should also insure, manage and control occupational health and safety on building site.

The portal uses especially as:

- **communication channel** - for transfer and interposition of information and outputs from occupational health and safety management at the company level into building site environs;
- **working tool** - for construction manager and foreman directly on factual building;
- **feedback** - completed agenda on the building site offers information about real state of occupational health and safety on building site.

Information, which portal consists and offers make easier to manager on building site work with occupational health and safety agenda completing and management and permits him simplification of control and survey state of OHS on building site.

To building contractor employees, it means to building workers, can the portal serve as very good aid for better understanding of tenets and principles of safety conduct on building site, where they daily perform their works.

3. THE ELECTRONIC WORK PORTAL STRUCTURE

The web site net is divided into following seven main contextual sections depending on seven chosen **central fields of occupational health and safety management on building site**, which were specified following the analysis of OHS state in building industry of Slovak republic and European Union:

1. Trainings
2. Safety coordination
3. Personal protection work resources
4. Accidents
5. Machines and equipments
6. Noise
7. Hazardous substances

Each of these contextual sections is divided into following five rubrics:

1. Terms



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2. Legislation
3. Main activities
4. Documents
5. Agenda

Content of particular rubrics:

- **Terms**
 - Explaining of important terms understanding – necessary for right use of other information from the portal content.
 - Resource for applied terms is terminology undertaken from at the present actual legislation, from European regulations and from Slovak technical norms pertinent to given problems.
- **Legislation**
 - Survey of at the present actual legislation Slovak regulations, statutes and instructions, eventually technical norms, which deal with OHS problems from the point of specified central fields of occupational health and safety management on building site.
 - The portal includes also full texts of obligatory legislation regulations with their assigning into particular fields of OHS management on building site.
- **Main activities**
 - Survey of main tasks and requirements flowing mainly from obligatory legislation, from internal company instructions in given OHS management fields; let us say generally recommended activities insuring safe performance on building site. Denominated key tasks and requirements are further explained with mention on responsibilities for their accomplishment delegation to particular persons attending the building realization.
- **Documents**
 - Survey and brief explanation of particular documents necessary for OHS on building site system management, which are elaborated mainly at the building contractor company level and have to be physically available on building site because of their effective transformation and application in daily practice during building works performance.
 - There are mainly documents, which provide information about remains risks on building site, about operation procedures and technologies, about right application of machines and equipments during building realization etc.
- **Agenda**
 - Survey and brief explanation of documents, which construction manager has to complete and manage on building site in the building realization phase. Primarily there are records and reviews important for OHS management on building site indication in case of controls from public



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authority carrying out check on OHS in companies. Secondly it is documentation, which serves as a feedback, if you like response on OHS management at the company level, because records safety state and building work environs level.

- There are some forms and record application forms, for example for evidence keeping and registration of work accidents and other unwanted incidents occurrence on building site, about trainings taking place directly on workplace, about provided personal protection work resources, records from testimonies after work accident etc.
- The practical advantage of electronic work portal is, that permits direct completion of particular available forms and application forms and their printing after completion.

4. THE ELECTRONIC WORK PORTAL OPERATION

As it is an interactive web site, the portal users come into system through internet. By this the system flexibility and possibility of its service from whichever computer on whichever place using is covered.

On left side of the monitor are situated hyperlinks of seven central fields of OHS on building site management, from which the user can select this one, in which is he interesting.

Consequently on the monitor right side arise hyperlinks of upper mentioned rubrics within the fields (terms, legislation, main activities, documents and agenda).

The user click to the rubric, of which information wants to apply or with which wants to work and next on the monitor arise all available information, if you like hyperlinks of other information, which are related with given OHS management field within taken rubric.

Full texts of legislation regulations and forms or application forms, which the portal includes, upraise after click on relevant hyperlink in new individual sight.

The user can whenever go back or ready open some another management field. Information from the portal is possible to print or remove into another text editor and so can be more applied.

Pictorial samples from the electronic work portal content are presented next:



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Figure 1. Content of the rubric „Terms” within „Accidents” field.



Figure 2. Content of the rubric „Legislation” within „Accidents” field



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ZÁZNAM O ÚRAZE

Miesto:
Útvár, zariadenie: _____ Okres: _____
Kraj: _____

1	Meno a priezvisko zraneného: _____ Dátum narodenia: _____ Stav: _____ Počet nezaopatrených detí: _____ Bydlisko: _____
2	Vzťah zraneného k zamestnávateľovi (zamestnanec a pod.): _____ _____

Je zranený poistený? ÁNO / NIE Pracovisko zraneného: _____

Figure 3. Application form for record of an accident completion situating in rubric „Agenda” within „Accidents” field

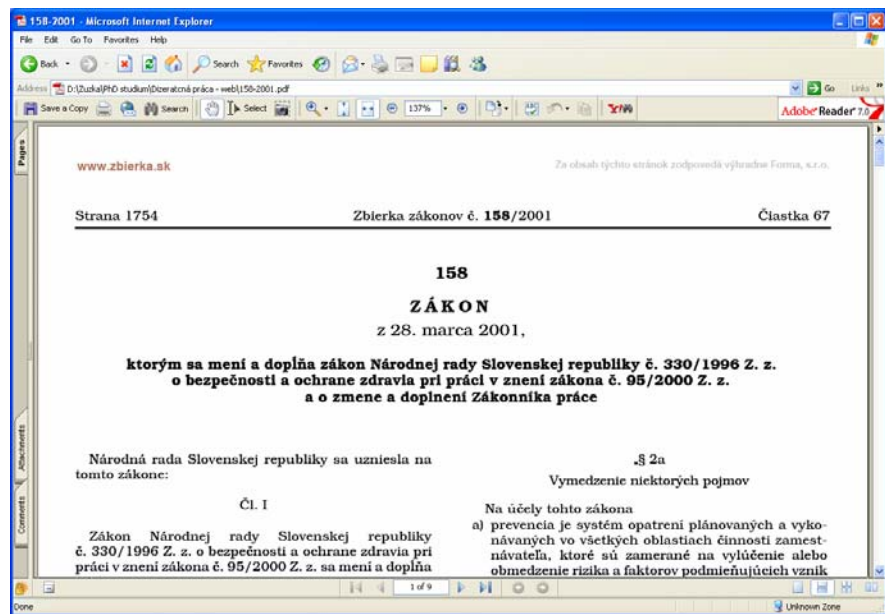


Figure 4. Full text of the regulation situated in rubric „Legislation” within „Accidents” field



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5. CONCLUSIONS

Establishment of occupational health and safety management system is only the first but certainly not satisfactory step, which company leading should perform on behalf of OHS state increasing. Only management system establishment is not guaranty, that it will be function system and that the system brings effect of OHS state and work conditions improvement, if its implementation into daily practice on company workplaces is not made. That is why is important along with OHS management system on company level establishment, keeping and improvement pay bigger attention to generation and creation of effective tools, which insure building realization management in terms of established OHS management system in company, what brings reduction of work accidents or other unwanted incidents amount on building sites.

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