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The Problems of Labor Safety and Health Protection in Constructions – EU Experiences and Standards and Legal Regulations in the Republic of Serbia

Within the activities of the European Agency for Safety and Health at Work in 2004 a special attention was paid to the field of constructions with an accent on a one-week action "Building in Safety". The research covered all stages of the construction process from planning to exploitation of a structure. Since in our country the new Low on safety and health at work is about to pass the procedure in the Parliament, and according to the tendency of harmonization of regulations and codes with EU countries, it is considered that it is necessary to carry out a comparative analysis of knowledge in this area in European countries and future legal measures and technical regulations in Serbia consequently. The aim of this paper is contribution to viewing the variety of problems and a unique approach to their solution in the direction of further improvement of sustainable development and humanization of working environment.

1. Introduction

Protection at work was for the first time mentioned in the documents of the European Union in 1951 when the **European Community for Coal and Steel** (CECA) was founded. Its foundation declaration authorized officials to start and finance research whose aim was protection at work in the production process of coal and steel, and the obtained results were to be forwarded to all interested institutions of the countries of the then European Community.

The legal basis of the present legislation of the European Union in the field of protection at work (directives and recommendations) is based on the **European Agreement** adopted in 1987 (article 118A). This document states the following:

The member states are obliged to advance and improve the working environment in order to strengthen the safety and health of employees. To make progress in this area it is first and foremost necessary to harmonize the existing conditions.

The Council gave minimum regulations in the form of directives that are to be applied gradually, considering circumstances and technical standards in the member states. Through the directives it is avoided to impose administrative, financial and legal barriers in the process of making and developing small and medium businesses.

The standards from this article do not prevent any of the countries to keep and apply measures that are in accordance with the **Agreement** and contribute to further protection of working conditions.

The EU directives on protection at work should serve to equalize working conditions, systems and measures of protection at work among the member states in order to eliminate disloyal competition on this basis between the member states of the European Union, but also between other countries that cooperate or intend to cooperate with the EU, particularly the ones intending to join it.

It is in the interest of all European companies, employers, employees and their trade unions to standardize and unify as soon and as successfully as possible the working conditions, laws, regulations and measures of protection at work in the European continent as a precondition to achieve social justice and spread economic progress throughout Europe.

2. Safety and Health in Constructions – State of the Facts and Actions taken in EU

There is, throughout the EU, a growing recognition that standards of occupational safety and health in constructions have to be improved. Constructing seems to be a risky business; each year about 1.300 workers get killed (more than twice the average of other sectors), 800.000 workers get injured (the relative incidence of non-fatal accidents is 141, comparing to an EU industry average of 100) and there is no evidence how many more suffer health problems (falling from heights, accidents involving transport, musculoskeletal disorders, respiratory problems due to asbestos or another dangerous inhalator, hearing difficulties, hand-arm vibration syndrome and many others) . The financial losses are also considerable: nearly 850.000 construction workers suffered accidents that entailed over 3 days loss of work in 1999.

Officially, there are 12.7 million employees in construction industry, which makes 7, 9% of the EU total workforce. The true number is higher, thought the problem of undeclared workers is believed to be particularly acute in construction (7%-19% of all work in the EU is undeclared). It is interesting to notice that 47% of all construction workers work in businesses with fewer than 10 staff (the EU average is 36%).

The European Agency for Safety and Health at Work dedicated the 2004 European Week for Safety and Health at Work to construction. The Agency has

collected cases from across Europe where actions have been taken to achieve better standards of safety and health.

All conclusions from actions can be classified in three phases:

Project preparation phase involves both the client who procures the work and participants in planning (the designer, the coordinator for safety and health and the contractor). Their early contact and discussion of safety and health problems which might occur, provides specification and schedule of works, for the project is as safe and without risk to health as the circumstances allow. The results of this approach are: hazards could be eliminated whenever possible, and risks from hazards that cannot be eliminated could be reduced. Some good examples are: buying tools with low noise and vibration emissions and schedule noisy work when the least number of workers is likely to be exposed, setting health and safety requirements in tender specifications, meeting at least the minimum of national legislation requirements, starting control activities before getting on the site by planning, training, site induction and maintenance activities)

Constriction phase protecting measures are based on cooperation of employers and project supervisors. To protect workers` health and safety is necessary to recognize and combat risk at source, use collective protective measures or individual ones where there are no other alternatives, avoid risk to all workers or evaluate risks that cannot be avoided, establishing control measures and emergency procedures which workers are informed about as well as appropriate training of employees.

A special attention is to be paid to risk assessment, which should identify potential danger or hazards, who might be harmed and how seriously, how likely this harm might happen, which actions are required to eliminate or reduce the risk to workers and what actions should be taken first.

Permanent workers` education about health and safety measures is not only the legal requirement but also effective way to ensure that workers are committed to health and safety procedures and improvements. It is particularly important before using some new technology or products.

Checklists for preventive actions are also a good example in managing the risks and hazards on the site, providing starting point to identification of possible risks and hazards and regular control at the specific site, though they are made to cover minimum health and safety requirements.

Post-construction (maintenance) phase is a specific problem due to existing buildings which may have been designed without any thought given to safe maintenance. On contrary to new buildings, which are designed to allow safe repair work during exploitation, the old ones might cause unpredictable difficulties and risks while maintaining. In such cases it is very important to get all possible information about structure and materials used in building process. An additional factor that may have to be taken into account is impossibility to avoid presence of non-working people at the site, so they can be affected by the maintenance work.

The recommendation is to apply the same principles of safe and healthy management as during the construction phase.

3. Safety and Health in Constructions – State of the Facts and Actions taken in Serbia

In Serbia protection at work was legally regulated after the Second World War. The term HTZ (hygienic and technical protection) was built in the then regulations, and it is just one part of a multidisciplinary area called protection at work. After the *Fundamental law of protection at work* was adopted in 1965 the new term – protection at work has been in use instead of HTZ (hygienic and technical protection). Next, the *Law of protection at work* went into effect in 1978, and then the third Law was adopted in 1991, which is still actual with changes and amendments from 1993 and 1998. Protection at work widened its range of meaning a long time ago leaving the narrow frame of mere introducing the employee with the danger of his/her working place and proscribed protective measures that should be observed by the employee. Nowadays, the phrase protection at work not only covers protection at work, but health protection and social protection as well, and above all, it is based on the risk estimation, that is it is based on the principle of prevention. The action of all participants in this area should be focused on what happens before not after the injury or occupational disease. This new approach in the field of protection at work requires a new terminology to be introduced and a new Law. The *Bill of safety and health at work* is in the parliamentary procedure at the moment. All other sub-legal documents referring to construction remain in effect unless they are contradictory to the future Law.

In Vojvodina there are 303,005 laborers in production out of 537,146 employees altogether. In construction, according to the official information for 2004, there were 9,500 workers in 724 companies dealing with this industry. In 2004 there were 254 casualties at work in construction in Vojvodina including 18 with fatal injuries. The injuries of extremities were the most frequent. It is interesting that most accidents happened in the second shift on Wednesdays; 86% of the injured were male craftsmen, 46-50 years old.

The cause of accidents was unprotected work at height, badly assembled or dismantled scaffolds, unprotected excavation, electric installations and poor organization of group work.

In Serbia in the first half of 2005, from fatal injuries at work 10 workers died (4 at building sites), while 209 workers more were badly and 6 slightly injured.

Key risks and hazards that are identified in the field of construction in the EU are also on the top of the list of accident causal in Serbia. There are including: falling from a height, being involved in a vehicle accident, getting an electric shock, being buried during excavation work, being struck by falling material, breathing in asbestos fibers, suffering a bad back from handling heavy materials, coming into contact with dangerous substances and suffering hearing loss from loud noise.

It can be said that compared to the old Law, the *Bill of safety and health at work* is original in its essential change in the way of working and thinking of all participants in this field. The essence of the *Bill of safety and health at work* is the risk estimation, which is the employer's obligation to make the *Act of risk estimation* in the written form for all jobs in the working environment and to determine ways and measures to eliminate risk. The advantage of the *Bill of safety and health at work* is in raising the level of conscience in the sense of the necessity to provide preventive measures. The preventive measures are herein explicitly determined unlike the old Law. Now the preventive measures are covered by a larger number of sub-legal documents and technical regulations and recommendations referring to certain specific cases.

Apart from the essential differences due to the introduction of the *Act of risk estimation* and prevention, there is a difference in terminology between the Law and the Bill. The advantage of the Bill is that it contains definitions of all important notions used in it, which are useful for all users. Its terminology is completely harmonized with the EU Directives. This new terminology will enable easier, better, precise and efficient communication with all interested in this field in the EU and the world.

It is important to stress that the *Bill of safety and health at work* has been made on the tripartite principle that is on the principle of a continuous discussion involving the state, representative union of employers and representative trade union as participants. In cases of incomplete negotiations when there is no communication among all participants, it is difficult to expect that the employees will realize their right to work in healthy and safe working conditions.

In the new solution the term 'job with special working conditions' (criteria determined through collective contracts) is eliminated, and a new one is introduced – 'job with enlarged risk' (new methodology relies on prevention).

A company is a business system oriented to the market and organized to satisfy the needs of consumers. Today we live in the world of constant and intensive changes in all areas of technical, economic or social nature. The success of each company and its employees depends on their ability to deal with these changes. The goal of every company is to control the changes. Following the ancient sentence by Heraclites: 'Nothing is eternal but the change' it can be concluded that permanent adapting to the changes and management over them are necessary.

The privatization is being carried out aiming to attract strategic partners (draw fresh capital into our economy), develop small and medium businesses, direct investments into new industries (technologies) and eliminate the inherited, inefficient economic structure. The privatization is a segment of transition whose success is measured with the quantity of new investments in one economy. It is necessary to maximize the influx of direct investments, not loans. The risk of investing into one country depends on its political, economic, financial and social stability. It is necessary to create an atmosphere of confidence for safe investing. In order to diminish the risk of investing in our economy, we need good legislation and good examples

of privatization. Examples of successful and regular privatization lower the risk and are invitations to other investors.

Safety and health at work is a segment of life of every employee, a segment of mutual culture and of everything that happens in every company and society in general. The efficiency of safety and health at work in our companies is on a low level due to a decade of social devastation.

The motivation of employees, system of productivity, volume of production and quality of products depend on the efficiency level of safety and health at work. The efficiency of safety and health at work depends on the engagement of all factors in the company. The unison and unanimous agreement of trade unions, state and employers are the best way to achieve fast and permanent social and economic development. The adoption of the *Bill of safety and health at work* is just the first step towards the goal, that is raising of conscience that safety and health at work is not an unnecessary expense but an investment and visa for the future.

4. Conclusion

The basic tendency in construction in Serbia is risk management and achievement of as good working conditions and working environment as possible in all stages of the working process, which are: project preparation phase, construction phase and post-construction (maintenance) phase.

It is planned to produce technical regulations and recommendations gradually, and till new decisions are made the old solutions are in effect if not opposite to the Bill.

The process of transition in construction has resulted in the disappearance of complex construction businesses with thousands of employees. Now there are mostly small and medium businesses, which should take over the leading role in the economic development. The economic development automatically enables a raise in the level of safety and health at work.

One of the latest documents, which is accepted in EU, is Bilbao declaration (European Constructions Safety Summit, Bilbao, 22 November 2004). Thought the constructions is one of the Europe's largest industries with the most problematic occupational safety and health record, the human and financial cost to society and the industry are huge. The Declaration sets the goals to be done to make more improving standards and calls for actions:

- Make more efforts, adopted by all actors involved in the activities of these sector, towards a continuous and sustained reductions of occupational accidents and diseases;
- Procurement – building in safety; safety and health issues occur throughout the entire lifetime of the finished project: design, construction, maintenance and demolition;

- Enforcement – improving compliance; it's necessary to ensure the effective enforcement of all safety and health legislation applicable to the construction sector (prevention is the guiding principle for occupational safety and health legislation in the EU);
- Guidelines – sharing good compliance practice; safety and health legislation needs to be accompanied by guidelines that can help to explain how the legal requirements can be implemented and in this way share good compliance practice;
- Designing safe and healthy construction work;
- Improving safety and health performance through social partner commitment.

The Bilbao Declaration signatory parts are European Construction industry Federation, European Builders` Confederation, Architects` Council of Europe, European Federation of Building and Wood Workers, European Federation of Engineering Consultancy Associations, European Council of Civil Engineers and EU Ministry for Social Affairs and Employment.

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