

COMPARATIVE ANALYSIS OF THE IMPLEMENTATION OF THE FACTORY DIRECTIVE (57/92 OF JUNE 24) IN POLAND AND PORTUGAL AND ITS IMPLEMENTATION AT CONSTRUCTION WORK

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Abstract

The main objective of this paper is to make a comparison regarding the minimum health and safety requirements on temporary or mobile construction sites between two European Union countries, Portugal and Poland. The Directive has been in force since 24 July 1992 and had to become law in EU countries by 31 December 1993. The methodology followed was to try to ascertain to what extent the application of the legislation in force was adequate and how it was applied and implemented over the years, since it is a law that has already been in force for some years. Its appearance made it possible to safeguard the safety of construction workers for some years now. We tried to analyse the degree of acceptance and implementation of the directive on building sites in both countries, comparing the way in which it is applied in both. The conclusion is that, as technology has evolved to unimaginable levels over the years, its implementation in the construction area is obviously mandatory, but it requires extra care with regard to safety, with other emerging risks. This means that new disadvantages have developed in the professional field of construction, new problems and new risks.

Keywords: Construction, Safety, Risk, Comparison, Legislation

Introduction

The problem of safety in the work area, especially in construction, is a topic of great interest at the level of the entire European community. The international conventions that have been held to try to find better solutions to existing problems are innumerable, and after all, we can say that all the proposed goals have not yet been achieved. About occupational safety in construction, we can say, and by far, that it is still inadequate, including, at national and European levels, the legislation and its instruments are not yet adequate.

In Europe, according to the statistics shown in the year 2019, almost 40% of accidents at work within the construction sector — share from impact with a stationary object (victim in motion). During the same year, almost a third (31.4%) of all non-fatal workplace accidents in Europe occurred at industrial sites. And about 22% of fatal accidents occurred as a result of loss of control of some type of machinery, tool or transport equipment. In addition, the most common non-fatal accidents are the result of physical or mental stress, in approximately 25% of cases, or due to the impact of some stationary object, in approximately 22% of cases. In Portugal we can say that 50% of the accidents in the work area, in the field of construction, occur due to the impact of a stationary object, and in Poland 43.2%, this with fatal results, in the year 2019; according to Eurostat statistics [ec.europa.eu/eurostat].

I would like to highlight other studies that have also investigated the major differences in the implementation of the Shipyard Directive, such as Cristina Reis & al who compared the transposition of the Shipyard Directive with the Spanish and French Directive, where different approaches on safety design and its application were highlighted, as well as the actors involved in safety matters.

In Portugal at the beginning of the implementation of the Shipyards Directive there was a great difficulty on the part of engineers to make good safety and health plans, having been the subject of a detailed study on the analysis of the quality of safety and health plans (Cristina Reis & al).

As the legislation imposed the existence of health and safety coordinators in Portugal, Cristina Reis & al. dedicated themselves to investigate the way safety coordination was done, having concluded that it is efficient if the company responsible for the work is motivated to do it, otherwise its implementation is very difficult.

This dissertation has a very clear objective of evaluating and comparing the different ways in which two countries of the European Union obey the guidelines set forth by the European Union in the legislation regarding occupational safety in the field of construction. As well as determining if each country has made substantial improvements in favor of benefiting its workforce. We must look for the weaknesses of this legislation, in order to make recommendations in favor of improving said flaws. Taking into account that construction is one of the bases in the economy of Portugal, along with Agriculture, fishing, tourism, etc. It is also important to mention that Poland has had a very rapid economic growth in recent years, and one of the main industries is also construction and construction machinery. That is why, based on the importance of the labor sector in the economy of the two countries, Poland and Portugal, we are going to discover what the strong points are in the guidelines issued by the European Union, and try to say how they can be to improve. Since construction has millions of employees, directly and indirectly, I think it is extremely important to recognize and clarify what are the measures to protect them in the best way.

Material and Methods

One of the factors that contributes to the high loss ratio in the industry is the work environment. It should be noted that one of the main characteristics of construction sites is the lack of fixed jobs such as those that commonly exist in a factory environment, in traditional industry. In fact, in a factory environment, jobs are practically unchanged over long intervals of time. This enables a careful design of machines and tools with a view to minimizing risks to the worker. It is also possible to proceed with the delimitation of the work post and, in particular, of the dangerous places that must have restricted access. Workers have clearly defined and known tasks. They also have a favorable environment for the use of comfortable personal protective equipment suitable for the tasks that play. On a construction site, on the other hand, the working environment suffers constant mutations, making it much more difficult to carry out an a priori survey of all the risks involved in the activities to be carried out. The worker has great mobility within the shipyard, being subject to risks posed by other activities in progress. The frequent change of tasks also means that workers often have to change their work and personal protective equipment. This is not always available or is not always flexible or ergonomic enough to perform a specific job, leading to situations of inadequacy or, more commonly, refusal to use. as well as risks such as falling from heights and crushing, responsible for a large number of serious and fatal accidents. On the other hand, each work is unique, which introduces difficulties in the standardization of the construction process. In fact, even in works of the same type, there is great diversity in the constructive solutions adopted and the respective construction activities and operations. Therefore, any approach to the implementation of safety solutions in a shipyard should be above all a case-by-case approach. This does not prevent, even at the project stage, from foreseeing the 7 existence of high-risk activities and indicating adequate preventive measures for their execution. The great dynamics of the shipyards' evolution, as well as the systematic alteration of the location and workstation, are other aspects that do not favor the stability of the implementation of safety measures for the performance of a certain type or set of activitie.

Portuguese Law

As a member of the EU, Portugal shall comply with EU legislation. In this respect, it transposed EU directives on OSH into the national law. The Portuguese OSH regulatory framework is composed of a large list of laws, regulations, decrees and orders regulating OSH aspects. The Occupational Safety and Health Law (L 102/2009, amended and consolidated by L 3/2014) is the leading OSH law in Portugal. This law transposes into the Portuguese law the EU Framework Directive 89/391/EEC, which aimed to introduce measures to encourage improvements in the safety and health of workers at work, amended by Regulation (EC)1882/2003, from the EU Parliament and the Council, by Directive 2007/30/EC, from the EU Parliament and the Council,

and by Regulation (EC)1137/2008, from the EU Parliament and the Council. The National Council for Health and Safety at Work (in the original language - Conselho Nacional de Higiene e Segurança do Trabalho - CNHST) aims to promote consultation and the sharing of responsibilities between the State and the social partners in defining, monitoring implementation and evaluation of policies for the prevention of occupational hazards and combat workplace accidents. It is a tripartite body in which the public administration and social partners are represented. It was intended since its creation to contribute to the formulation and implementation of national safety policy, workers' health and working environment, and reporting on national health and safety plan and on workers' health and working environment, among other objectives.

The enforcement of safety and health at work is a competence of the Portuguese Labour Inspectorate, which is nowadays a part of an organization called Authority for Working Conditions (in the original: ACT - Autoridade para as Condições do Trabalho). It is placed under the supervision of the Ministry of the Solidarity, Employment and Social Security. Remarks / comments: Following the approval by the European Union of a new Strategy for Safety and Health at Work for the period 2007-2012 Portugal adopted, under the National Council for Safety and Health at Work (CNHST) the National Strategy for Safety and Health at Work for the period 2008-2012 (Resolution issued by the Council of Ministers 59/2008, 01.04.). With regard to the new European Strategy for Safety and Health at Work 2013/2020, there is still work in progress for the approval of the new national strategy.

Health and safety covers physical and psychological health. The employer shall have a duty to ensure the safety and health of workers in every aspect related to their work. Within the context of his/her responsibilities, the employer shall take the measures necessary for the safety and health protection of workers on the basis of the following general principles of prevention: - ensuring, in every work places, that exposure to chemical, physical and biological agents as well as to stress risk factors does not pose a danger to the health and safety of workers; - adapting the work to the individual, especially as regards the design of work places, the choice of work equipment and the choice of working and production methods, with a view, in particular, to alleviating monotonous work and work at a predetermined work-rate and to reducing their effect on health.

Definition of worker Fig 1. Signs in Portugal



Figure 1. Signs in Portugal (Internet,2022).

Worker is any person employed by an employer, including trainees and apprentices and those who are economically dependent on the employer even if they are not employed under a contract of employment. Definition of employer means a natural person or legal entity which uses the services of one or more employees and is responsible for the undertaking and/or establishment or, if it is a non-profit entity, the person that has the competence to hire workers. It is an occupational accident the one that occurs at the workplace, during working hours and results in non-fatal injury, other types of harm or illness that produce reduction on working capacity or death Definition of occupational disease Summary/citation: The term “occupational disease” covers any disease contracted as a result of an exposure to risk factors arising from work activities. The list of occupational diseases is published as an annex to Decree 76/2007. Competent national authority for safety and health at work. The enforcement of safety and health at work is a competence of the Portuguese Labour Inspectorate, which is nowadays a part of an organization called Authority for Working Conditions (in

the original: ACT - Autoridade para as Condições de Trabalho). It's under the supervision of the Ministry of the Solidarity, Employment and Social Safety. Duty to ensure the health and safety of employees. It is the duty of every employer to ensure the safety and health at work of all his/her employees, taking into account the general principles concerning the prevention and protection of workers against occupational accidents and diseases. Duty to protect the health and safety of people other than their own employees. The employer shall take appropriate measures so that employers of workers from any outside undertakings and/ or establishments engaged in work in his undertaking and/ or establishment receive adequate information concerning the safety and health risks and protective and preventive measures and activities in respect of both the undertaking and/ or establishment in general, and each type of workstation and/ or job, and also the measures taken which are to be provided to the workers in question. Specific hazards for which surveillance is required. The employer must ensure the health surveillance of workers against the risks to which they are potentially exposed in the workplace. For example, the employer must ensure, in the workplace, that exposure to chemical, physical and biological agents and psychosocial risk factors are not a risk to the safety and health of workers. The employer must ensure the appropriate surveillance of workers' health in what concerns the protection of the genetic material through health checks, and an examination before the first exposure. The employer has the obligation to provide suitable and sufficient sanitary conveniences and washing facilities including showers if required by the nature of the work or for health reasons. The regulations set conditions that must be met for these facilities to be considered suitable. Drinking water for the industry sector it is clearly stated that employers must provide all workers with an adequate supply of drinking water. They shall be also provided with a sufficient number of suitable cups or other drinking vessels unless the supply of drinking water is in a jet from which persons can drink easily. Appointment of an OSH practitioner. The employer can organize OSH activities using authorized legal entities and natural persons. This organization may adopt one of the following ways: a) internal service; b) common service; c) external service. In any case, the law states a minimum number of safety officers depending on the number of workers. There are no specific regulations on working in confined spaces, but it is covered by legislation related to chemicals and dangerous substances. Risks arising from poor maintenance of workplace facilities. All buildings with workstations must be of sound construction and properly maintained. The employer must ensure regarding any place of work under the employer's control, the maintenance of it in a condition that is safe and without risks to health. Exposure to extreme temperatures. During working hours, the temperature in rooms containing workstations must be adequate for human beings, having regard to the working methods being used and the physical demands placed on the workers. The temperature in rest areas, rooms for duty staff, sanitary facilities, canteens and first aid rooms must be appropriate to the particular purpose of such areas. Windows, skylights and glass partitions allowing excessive effects of sunlight in workplaces shall be avoided, having regard to the nature of the work and of the workplace. The Psychosocial risks are covered under the general duties of the employers. The law only states the obligation of every employer to ensure, in the workplace, that exposure to psychosocial risk factors is not a risk to the safety and health of workers.

Polish Law

The framework laying out the right to ensure safe and healthy working conditions is described in article 66 of the Constitution of the Republic of Poland of 2 April 1997. The rights and duties of the employees and employers, as well as the working conditions for employees are regulated by the Labour Code. The majority of the employers' duties are described in Section X of the Labour Code entitled "Work safety and hygiene", Section VIII "Employees rights connected with parenthood" and Section IX "Employment of young adults". The Labour Code includes legal delegations to issue administrative acts concerning detailed duties in respect of health and safety at work. In the organisational system of labour protection in Poland, the Minister of Labour and Social Policy is responsible for the development and implementation of OSH national strategy but other ministers are also authorized to do so. According to the Labour Code, the employer bears responsibility for the state of work safety and hygiene. It is the fundamental duty of the employee to also observe the rules

and regulations of health and safety. The employers' duty to provide safety at work is specified in article 15, section 1 of the Labour Code. The Labour Code also specifies conditions for health and safety for individuals performing work on a basis other than an employment relationship in a work establishment or in a place designated by the employer, as well as to anyone conducting business activity on their own account in the work establishment or in a place designated by the employer. Obligation to respect the provisions of safe and healthy at work is also imposed on the entrepreneur who does not employ workers.

"The employer is obliged to protect the health and life of employees by ensuring conditions of health and safety at work by the appropriate use of the achievements of science and technology" - article 207 2 of the Labour Code. Health and safety requirements have been outlined in the Labour Code while laws regulating the supervision and control of working conditions can be found in separate legal acts. These are: the Act of 13 April 2007 on National Labour Inspectorate, the Act of 14 March 1985 on National Sanitary Control Inspectorate and the Act of 24 June 1983 on Social Labour Inspection.

"An employee is a person employed on the basis of an employment contract, an appointment, an election, a nomination or a co-operative employment contract" Definition of employer "An employer is an organisational unit, even if it has no legal personality, or an individual, provided it employs employees" - art. 3 (1) 1. Kodeksu Pracy. "In the case of an employer being an organisational unit, any acts concerning labour law are performed by the person or authority managing that unit, or by another person assigned to carry out these acts. The provision of 1 applies accordingly to an employer being an individual, if the employer does not personally perform the acts referred to in that provision" - art. 3 Kodeksu Pracy. Remarks / comments: The employer's legal definition contained in the Labour Code raises a number of concerns which can be clarified through the decisions of the Supreme Court. While these decisions are not binding, they help to interpret the concept of the employer.

The provisions of the Labour Code apply to work in the construction sector. Remarks / comments: The Labour Code defines the rights and duties of employees and employers. In terms of health and safety regulations, the Labour Code also applies 18 to employers or entrepreneurs ordering the execution of the work under civil law contracts and the self-employed - the employer is responsible for health and safety at the designated workplace. Definition of occupational accident Fig. 3. occupational accident Summary/citation: "An employment injury is regarded as a sudden event brought about by exterior factor causing injury or death which took place in relation with the following work: 1) during or in relation with simple tasks performed by the employee or the instructions of the superior; 2) during or in relation with simple tasks performed by the employee for the employer, even without his order; 3) with the employ being at the disposal of the employer on the way between the employer's office and the place where the task being realized as a consequence of the attitude to work" - art. 3 of the Act of 30 October 2002 on social insurance in case of occupational accident or disease. Remarks / comments: In the definition of an accident at work, there are four concepts (suddenness, external cause, injury or death, and work-related) that must occur together at an event to be considered an accident at work. Since these concepts are general in nature, there is a judicature of the Supreme Court to assist in the interpretation of the definition of an accident at work.



Figure 1. Signs in Poland (Internet,2022).

"An occupational disease is one of the diseases mentioned on the list of occupational diseases, if, following an evaluation of the condition of work, it can be confirmed unquestionably or with a high probability that the disease was caused due to factors harmful to health present in the work environment, or in relation to the manner of performing work, hereinafter referred to as professional exposure" - art. 23.

Results and Discussion

Poland Portugal be familiar with the provisions and principles of health and safety at work, participate in training sessions and briefings in this field as well as to undergo the required control examinations, The employer shall have a duty to ensure the safety and health of workers in every aspect related to their work. Perform work in a manner that complies with the provisions and the principles of health and safety at work, as well as to comply with the instructions and directives issued in this area by superiors, Within the context of his/her responsibilities, the employer shall take the measures necessary for the safety and health protection of workers on the basis of the following general principles of prevention: Care about the proper condition of machines, devices, tools and equipment, as well as tidiness and order in working premises, ensuring, in every work places, that exposure to chemical, physical and biological agents as well as to stress risk factors does not pose a danger to the health and safety of workers; Apply measures of group protection, and to use the entrusted means of individual protection and working clothing and shoes in accordance with their use, Adapting the work to the individual, especially as regards the design of work places, the choice of work equipment and the choice of working and production methods, with a view, in particular, to alleviating monotonous work and work at a predetermined work-rate and to reducing their effect on health. Undergo initial, periodic medical examinations, check-ups and other medical examinations as recommended, and to follow medical recommendations, make correct use of machinery, apparatus, tools, dangerous substances, transport equipment and other means of production; Immediately notify a superior of an accident noticed in the work establishment, or a danger to life or human health, as well as to warn co- employees and other persons in the area of the threatening danger of any Make correct use of the personal protective equipment supplied to them and, after use, return it to its proper place; danger, Co-operate with the employer and superiors in the performance of duties concerning health and safety at work" - art. 211 Refrain from disconnecting, changing or removing arbitrarily safety devices fitted, e.g. to machinery, apparatus, tools, plant and buildings, and use such safety devices correctly; "In the event of a direct danger to the health or life of employees or any other people, the employer must enable the employees to undertake activities in order to avoid the danger - even without contact with a superior - to the best of their knowledge and accessible technical measures" - art. 209(3) Kodeksu Pracy. (Work code) Immediately inform the employer and/ or the workers with specific responsibility for the safety and health of workers, of any work situation they have reasonable grounds to consider that it represents a serious and immediate danger to safety and health, and of any shortcomings in the protection arrangements; Cooperate, in accordance with national practice, with the employer and/ or workers with specific responsibility for the safety and health of workers, for as long as may be necessary to enable any tasks, or requirements imposed by the competent authority to protect the safety and health of workers at work, to be carried out; Cooperate with the employer and/ or workers with specific responsibility for the safety and health of workers, for as long as may be necessary to enable the employer to ensure that the working environment and working conditions are safe and pose no risk to safety and health within their field of activity.

Conclusions

The European Directives publication has allowed the standardization of bases that must respect the discipline of Safety, Hygiene and Health at Work. This standardization, in the other hand, when transposed into national legislation for each country, is adapted for each of their realities.

In this work, it's possible to conclude that there are similarities in the laws of the three countries, namely the guarantee of safety conditions in the workplace, specifically in a building site, its responsibility of all involved and it's included in all consulted diplomas.

Regarding the health and safety plan (HSP), highlight to the Spanish legislation, for the differentiation of the type of Study of Safety and Health and Study Base of Safety and Health, for the overall value of the construction work, including the project design, and for the type of work, which turns out to require the technician to adjust the document to the type of project.

The General Principles of Prevention are common to all the analyzed diplomas and are undoubtedly a work base and an asset to the Health and Safety Occupational promotion across the Europe.

Acknowledgements

This work was financially supported by: Programmatic funding - UIDP/04708/2020 of the CONSTRUCT - Instituto de I&D em Estruturas e Construções - funded by national funds through the FCT/MCTES (PIDDAC).

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