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REQUIREMENTS FOR THE EMPLOYEE PERIODIC TRAINING PROCEDURE

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**Abstract.** Despite the decreasing number of fatalities in construction, the number of injured in accidents at work is continuously increasing. To reduce the overall number of casualties, employers and employees must labor law regulations regarding occupational health and safety. One of the guidelines imposed on employers by law is periodic training for employees. The article aims to present three, the most critical and essential elements of regular periodic training in a construction company: the employer responsibilities, the trainer responsibilities, and the training program itself. Because of the authors' practical experience in this field, the article was prepared based on Polish law acts.

**Keywords:** occupational health and safety; employees training in construction; periodic training procedure.

Periodic training can be organized by the employer or commissioned by a training company. Choosing the right training unit (or employee) and determining the conditions of training by the employer are the key issues determining how effective and efficient the periodic health and safety training will be. It is one of the first and simplest preventive measures, reducing the likelihood of an accident that could cause an accident at work. Below, the author presents the three most important and essential elements of periodic training in a construction company, starting with discussing the requirements that a construction company, conducting the training itself, or a training company commissioned with periodic training, should meet [1].

**1. Construction company as an employer**

The first, although informal, stage of training is its planning by the employer. The training must meet individual legal requirements. During the training, specific health and safety issues must be discussed. The training itself should be conducted by the instructor who will pass the knowledge to the employees. To define the requirements for periodic training and create an outline, the

author made some hypothetical assumptions (included in the employer's theoretical order, specified below):

1) In a month, it is assumed that a period of 3 years will pass from the training for 25 workers in blue-collar positions in a construction company that builds residential, manufacturing, and commercial buildings.

2) In accordance with the Regulation of the Minister of Economic and Labor of 27 July 2004 on training in occupational health and safety, the company's director is obliged to conduct periodic training for these employees. He decides to order a venture for an experienced training entity (if the construction company were to carry out the training itself, the entire specification would be identical) [3].

3) The company director, in order to the training unit, presents the following data:

a. Conduct periodic training for 25 construction workers in blue-collar positions in the following professions:

- operator of a backhoe loader and construction crane – 1 person,
- operator of a compactor, concrete mix pumps and concrete mixers, construction trucks and lifts – 2 people,

- auxiliary workers of earthworks, road works, and internal transport and storage – 2 people,
- carpenter – roofer – 2 people,
- bricklayer – plasterer – 3 people,
- concrete mixers – fixers – 2 people,
- helpers of a bricklayer – plasterer – 3 people,
- electricians – welders two people,
- assemblers of sanitary installations and devices (internal and external) – two people,
- technologists of finishing works – 4 people,
- auxiliary workers – 2 people.

The professions are interchangeable in the construction process. The employees mentioned above work in the company for 1 to 10 years;

**b.** The training was to take place on April 14, 2014. – until April 18, 2014; The exact date of the training should be included in the training program.

**c.** The training should take place in the training company's center;

**d.** During the training, the following issues should be discussed:

- how an employee on a construction site should protect their lives and others,
- employee behavior in the event of noticing an accident on the construction site, first aid (to be carried out practically for selected cases),
- safety coordination in the work of several companies on the construction site,
- examples of accidents on the construction site, the most common cases in the country and statistics,
- work at height, falls from height (scaffolding, roofs, ladders),
- electric shock at the construction site,
- safety in the operation of machinery, technical devices, and storage and transporting materials,
- safety during earthworks.

**e.** A training program based on the Regulation of the Minister of Economic and Labor of 27 July 2004, taking into account the professions' professional tasks and the guide-

lines mentioned above, must be presented to the employer by 01/04/2014.

**f.** Classes are to be conducted using the latest knowledge in the field of occupational health and safety and using demonstrative methods during the classes.

**g.** Training must end with an exam. The exam should be prepared in the form of a test, particular attention should be paid to the issues from point *3d*.

## **2. Training company as a trainer**

Specification of an experienced training company commissioned to conduct the training:

1) The training company appoints an experienced lecturer in occupational health and safety in construction to conduct classes.

2) The lecturer gets acquainted with the company's order, in particular:

**a.** The scope and conditions of the construction work performed.

**b.** The scope of the employees' professional tasks listed in the order, paying attention to the fact that the employees perform their professional tasks interchangeably during the construction works.

**c.** The issues highlighted by the company's director.

3) The lecturer, based on the "Framework periodic training program for workers employed in blue-collar positions" contained in the "Regulation of the Minister of Economy and Labor of 27 July 2004 on training in the field of health and safety at work" and the guidelines of the client, prepares a training program for the company.

4) The lecturer develops a test to check the knowledge after the training for the trainees considering their professions.

5) The lecturer and the lecturer send the training program along with the checking test for approval by the ordering party. After its approval, training can be conducted.

6) The training company will conduct the training following the approved training program documented in the lesson log.

7) The training ends with an exam that checks the acquisition by the training participant of the knowledge covered by the training program and organizing work by the pro-

visions and principles of health and safety at work.

8) Based on the participants' examination, the training company issues the "Certificate of Completion of Periodic Training," which is attached to the employee's file. The certificate is entered in the "Register of issued certificates" in the training company.

Same as the specification of the 2 participants who participated in the training described above, there should be a model characteristic of the preparation and course of periodic OHS training for workers employed in the construction industry.

### **3. Periodic training program for workers employed in blue-collar positions in the construction industry**

The training aims to update and supplement the knowledge and skills of construction workers, particularly in the field of:

- a.** Regulations, as well as occupational health and safety rules related to the work performed on the construction site.
- b.** Rules of conduct of an employee on a construction site in health and life protection for himself and others.
- c.** Work-related hazards and methods of protection against these hazards.
- d.** Proceedings in the event of an accident or almost an accident.
- e.** Safety coordination during the work of several companies on the construction site.
- f.** Performing work at height, securing persons on the construction site against falling objects, and elements of building structures.

**g.** The electric shock on site.

**h.** Safety during the operation of machines, technical devices, and storage and transporting materials.

**i.** Safety during earthworks during demolition and renovation works.

The training participants are employees who are in blue-collar positions in a construction company (already listed in the specification):

**a.** Backhoe loader and construction crane operator – 1 person,

**b.** The operator of a compactor, concrete mix pumps, concrete mixers, construction trucks, and lifts is two people,

**c.** auxiliary workers of earthworks, road works, and internal transport and storage – 2 people,

**d.** carpenter – roofer – 2 people,

**e.** bricklayer – plasterer – 3 people,

**f.** concreters – fixers – 2 people,

**g.** bricklayer's helpers – plasterers – 3 people,

**h.** electricians – welders – 2 people,

**i.** fitters of sanitary installations and devices (internal and external) – two people,

**j.** finishing works technologists – 4 people,

**k.** auxiliary workers – 2 people.

Place of training: lecture room No. XYZ in the building of the training company.

Training time: 8 teaching hours and 30 minutes. Exam on April 14, 2014, from 8.00 a.m. to 14 30.

Detailed training plan with topics and issues to discuss was presented in *Table 3* [4].

No.	Topics of classes with issues:	Time*
1.	<p>Legal regulations in the field of occupational health and safety, taking into account, the regulations related to the work performed on the construction site:</p> <ol style="list-style-type: none"> <li>a. Necessary legal regulations in occupational health and safety concerning an employee working on a construction site.</li> <li>b. Supervision authorities over working conditions.</li> <li>c. Rights and obligations in the field of health and safety for working people in the building sector.</li> <li>d. Labor law – reminder:               <ul style="list-style-type: none"> <li>• employment relationship,</li> <li>• contract of employment,</li> <li>• changing the terms of the employment contract,</li> <li>• termination of the contract,</li> <li>• remuneration,</li> <li>• working time,</li> <li>• annual leave.</li> </ul> </li> <li>e. Basic employee protection measures:               <ul style="list-style-type: none"> <li>• Preventive health protection of employees, medical examinations,</li> <li>• Work clothes and footwear. Personal hygiene products,</li> <li>• Personal protection,</li> <li>• Drinks and preventive meals,</li> <li>• Safety training.</li> </ul> </li> </ol>	1h
2.	<p>Threats with factors occurring in work processes and the principles and methods of liquidation or limitation of the impact of these factors on employees - taking into account changes in technology, work organization and work stations, the use of collective and individual protection measures, the introduction of new devices, equipment and work tools:</p> <ol style="list-style-type: none"> <li>a. Safety and Health Protection Plan on the construction site.</li> <li>b. Principles of protection against hazards on the construction site.</li> <li>c. Earthworks on the construction site.</li> <li>d. Work at height, selection of technical measures to prevent falls from a height.</li> <li>e. Electric power installations and devices.</li> <li>f. Machines and devices on-site.</li> <li>g. Hazardous substances and preparations at the construction site.</li> <li>h. Occupational Risk and Summary.</li> </ol>	3h
3.	<p>Rules of conduct in the event of an accident at work and in emergencies (e.g., fire, emergency), including the principles of first aid in the event of an accident:</p> <ol style="list-style-type: none"> <li>a. Organization of first aid at the construction site.</li> <li>b. Chain of rescue operations (first three links).</li> <li>c. General principles of first aid.</li> <li>d. Exercises in the field of first aid.</li> <li>e. Basic rules of fire protection and fire procedures.</li> </ol>	2h

4.	Circumstances and causes of accidents at work characteristic of the performed work and related prevention: a. Causes of accidents – material and technical factors. b. Causes of accidents at work within organizational factors. c. The causes of accidents at work in terms of human factors. d. Significant activities to ensure safety on the construction site. e. The most common accidents at construction sites. f. Accident Statistics. g. Legal consequences of breaking health and safety regulations. h. Summary.	2h
5.	Exam.	0,5h

*Table. Detailed training plan with topics and issues to discuss [2] and [4]*

\* During class hours of 45 minutes

The training will be implemented in the following forms: lecture combined with a talk with the audience, presentation combined with watching movies, discussion of the circumstances and causes of accidents at work characteristic (for the work performed by training participants) prophylactic conclusions. Ways to check the students' knowledge – examination in accordance with the approved test.

Teaching aids used: multimedia projector, laptop, films, multimedia presentations.

Literature: During the training, publications of the National Labor Inspectorate and literature indicated in the outline will be used [4].

The above example presents both the procedure and the program of potential training in occupational health and construction safety. Based on this example, the trainer can

prepare his training, adapted to other legal requirements (in other countries), or to the specificity of the industry (or the company itself).

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