Occupational Safety and Health Training according to EU-OSH legislation

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Received: 10 May 2018; Accepted: 30 May 2018; Published: 30 June 2018

Abstract. Nurses All the EU States follow the system of EU-OSH Legislation (Art. 16 of the Framework Directive) which sets the minimum standards for workers protection. Among the principal directive arrangements there is the worker’s training. This has to make him responsible of the contribution of the lowering of Safety and Health risks. The OSH trainer will enable him to become the protagonist of his awareness of the risks and dangers of his job. Health and Safety risks diminish when OSH training becomes an integral part of the lifelong training of the worker.

Keywords: Worker’s Training, Safety and Health Training, EU-OHS Legislation, Lifelong training, Workers’ awareness

Introduction

According to the European Union legislation and its directives, based on the legal foundation established in Article 153 of the Treaty on the Functioning of the European Union, EU legislature has established a system of basic principles of safety and health management, which must be transposed into national law by the Member States. So, the principles are applicable in all Member States of the European Union and in this case Italy.

The European Framework Directive (1989/391/EEC) (1) is the most important legal act, which establishes the principles for managing safety and health, such as: responsibilities of the employers, rights/duties of workers, who and how is assessing risks to improve company processes, and workplace health and safety. All States of the Union follow these common
principles within. The system of EU-OSH legislation and subsequent Directives within the meaning of Article 16 of the Framework Directive

“The European Union enacts Directives in the field of occupational safety and health (OSH) based on the legal foundation of Article 153 of the treaty on the functioning of the European Union”. (2)

The European Directives are then transposed into national law by the legislatures in each Member State. The European Directives on OSH set the minimum standards for workers’ protection. Member States may exceed those standards when transposing the Directives, but they may not lower existing ones. It is Council Directive 1989/391/EEC of 12 June 1989, generally referred to as the "Framework Directive", that states there is no justification for reducing existing protection levels in individual Member State. In Italy the EU Directives was first applied by the law 626/94.

The common principles were introduced by Directive 1989/391/EEC. They were specified further by nineteen individual directives or daughter Directives, based on Article 16 of the Framework Directive.


The Directive 1989/391/EEC established the instrument of risk assessment in European OSH legislation, which, when it was adopted in 1989, was a revolutionary principle for the legal systems and OSH management systems of many countries. Instead of merely complying with prescriptions and limit values, it enables employers to decide on improvement measures that best meet the risk profile of the company. The Framework Directive can thus be considered a milestone for workplace prevention measures Occupational safety and health risk assessment methodologies.

The principal Directive arrangements are set:

- To establish an equal level of safety and health for the benefit of all workers. However, domestic workers, certain public and military services, and self-employed are exempt.
- To ascribe responsibility to employers for preventing ill-health at work; to oblige employers to take appropriate measures to make work safer and healthier.
- To define the role and key elements of risk assessment, such as hazard identification, workers participation, adopting adequate measures with the priority of eliminating risk at source, documentation, periodical re-assessment and training.

With the new obligations for prevention processes in the companies, the Directive raises the question for new forms of safety and health management as part of general management processes including training.

1.2. Training

Directive 1989/391/EEC also defines general legal requirements for staff training in its provisions on the general obligations of the employers Article 6 says: ‘Within the context of his
Responsibilities, the employer shall take the measures necessary for the safety and health protection of workers, including prevention of occupational risks and provision of information and training, as well as provision of the necessary organization and means.’ (3) Article 12 gives details how and when the training should be provided and who should be included OSH training.

Training is not only the responsibility of the employer. Directive 1989/391/EEC also sets out workers’ obligations (Article 13). Each worker shall be responsible as far as possible for taking care of his/her own safety and health and that of others affected by their acts or omissions at work, in accordance with the training and instructions given by the employer.

As previously mentioned, training is subordinate to other prevention measures in the hierarchy of general prevention principles. However, OSH experts consider training as an important complementary to control measures because prevention measures must be explained to the workers as the target group. They should be involved in discussion and testing furthermore they must be thoroughly conscious of the hierarchy of prevention and control measures.

1.3. Definitions

“OSH training aims at improving the capability, capacity, and performance of staff, leading to safe and health-oriented behaviour, often linked directly to specific tasks. This is achieved by the acquisition of knowledge, skills, and competencies. The term is mostly used in connection with companies or vocational institutes. Education in contrast refers much more generally to the process by which society deliberately transmits its accumulated knowledge, skills, customs and values from one generation to another.” (4) The worker must have both to be able to recognize eventual occupational risks and be an active subject in the put in practice of the control measures according to the directives of his employer.

Other terms can be found such as: instruction, qualification, and empowerment. They have however, slightly different meanings:

*Instruction* refers to the methodological communication of skills, knowledge and experience that are necessary for the completion of a specific task, including behaviour and responsibility. Instruction is a short-term event when compared to training. According to this the worker can sort out that his behaviour is highly relevant for his safety and that of his fellow workers. All this is a great part on his responsibility because a superficial attitude can produce a situation of danger.

*Qualification* refers to the ‘competencies’ and “knowledge” that are expected in any job role. These are important to avoid wrong procedures during the working activity.

*Empowerment* refers to increasing of, social, educational, or economic strength of individuals and communities in order to enable them to solve problems on their own. The worker is able to thoroughly understand his position and responsibility when problem solving according to risks and dangers.
1.4. Legal situation

“The legal requirements are, in the first instance, laid down in the EU ‘OSH Framework’ Directive 89/391 adopted in 1989 under ‘General obligations on employers’: ‘Within the context of his responsibilities, the employer shall take the measures necessary for the safety and health protection of workers, including prevention of occupational risks and provision of information and training, as well as provision of the necessary organization and means.’ [5]

The directive specifies forms and contents of the ‘Training of workers’:

1. The employer shall ensure that each worker receives adequate safety and health training, specifically in the form of information and instructions according to his workstation or job:
   - on recruiting the worker,
   - in the event of a transfer or a change of job,
   - in the event of the introduction of new work equipment or a change in equipment,
   - in the event of the introduction of any new technology on the premises.
   - The training has to be:
     • adapted to take account of new or changed risks,
     • repeated periodically, if necessary.

2. The employer will ensure that workers from outside the company undertakings and/ or external employees engaged in work in his company premises have factually received appropriate instructions regarding health and safety risks during their activities in his establishment.

3. Workers’ representatives with a specific role in protecting the safety and health of workers will be involved to appropriate training.

According to this legal requirement the employer is the first responsible from the moment of recruiting the worker, throughout all changes of role or place or improvement in the work equipment or the introduction of new technologies. He must guarantee and ensure not only that the worker will have an adequate training but he must control the efficacy and usefulness of the courses.

Training is not only something the employer has to provide but also something the worker has to take seriously and act according to it. The directive states under ‘Workers’ obligations’:

1. “It shall be the responsibility of each worker to take care as far as possible of his own safety and health and that of other persons affected by his acts or omissions at work in accordance with his training and the instructions given by his employer.”

The directive establishes what is usually the hierarchy of control measures. It lists ‘General principles of prevention’ and stresses the need for ‘giving appropriate instructions to the workers’. Training is sometimes seen as a sub-level within the hierarchy. However, most experts see training as an important complementary to all types of control measures. They argue that
measures for risk elimination, technical and organisational measures, as well as and personal risk prevention measures, must be explained, discussed and tested with the workers.

The directive specifies, that ‘employers shall consult workers and/or their representatives and allow them to take part in discussions on all questions relating to safety and health at work’ And, specifically, that ‘Workers or workers’ representatives with specific responsibility for the safety and health of workers shall take part in a balanced way, in accordance with national laws and/or practices, or shall be consulted in advance and in good time by the employer with regard to:

(a) any measure which may substantially affect safety and health; […] (e) the planning and organization of the training …’ So, there must be a synergy for health and safety within the place of work composed of the employer, the workers and their representatives. So, the workers involvement in discussions after the training will help the employer have a feedback of the usefulness of the training itself and the ability of the worker to apply what they have learnt.

These requirements of the directives are further specified under various other health and safety specific topics, such as the manual handling directive and the OSH directive on young workers. In fact, the latter requires employers to pay particular attention to the level of training and instruction given to young people. Work involving the risk of accidents which it may be assumed cannot be recognised or avoided by young persons owing to their insufficient attention to safety or lack of experience or training are forbidden for them. Both young people and apprentices are more vulnerable to risks in the work place because they have no experience with the procedures, the place, the equipment and have no awareness of dangers so the employer must be very attentive to these categories of workers.

All these directives have been adopted into the national legislation of the member states.

1.5. Content of OSH training

Needs assessment

Training should first of all start with a needs assessment, identifying the problems to be addressed:

- Accidents and work-related diseases that occur in the company
- Problems that can be anticipated
- Legal requirements.

Methods for the needs assessment could be: documentation review, specific analyses, interviews and observation, surveys.

Each course should begin with a brainstorming of the awareness of the workers according to risk and dangers of their job. Setting the SMART goals (by Professor Rubin) the employer can clarify, with the workers, the ideas, focus the efforts, use time and resources productively, and increase the chances of achieving what you want according to safety.

Depending on the objectives, the selection of the content has to describe as precisely as possible the information that must be presented to the group.

The selection also needs to consider the age, cultural background and experience of the staff.” (6) The employer to make sure goals are clear and reachable, each one should be:
Specific (simple, sensible, significant). A careful preparation of the training units has to consider the solutions to the identified problems, e.g.:

- Prevent cuts by purchasing safety knives
- Prevent manipulations of machine guards by a ‘safe behaviour’ campaign.

External consultation may be needed in special cases.

- Measurable (meaningful, motivating).
- Statistics on cuts, analysis of a typical cut accident, description of the safety knife, company rules, etc.
- Achievable (agreed, attainable).
- Preconditions of a ‘safe behaviour’ campaign: positive example of the management, no-blame culture, etc.
- Relevant (reasonable, realistic and resourced, results-based).
- The workers know how to use the safety knives.
- Time bound (time-based, time limited, time/cost limited, timely, time-sensitive). Periodically there will be updating on safety knives.

The workers will perceive that the goals of the training will have all the characteristics of the SMART method so that they will feel comfortable and trained.

Training objectives should be as specific as possible, in order to enhance the evaluation. The selection of content and methods also benefits from clear objectives.

1.6. Methods of OSH training

An equally important issue is how to present the selected content of the training course, because the more the workers are involved the more the presented material will be memorised and put into practice.

Teaching methods must be selected according to the objectives, the selected content, and the language, literacy levels and experience of the target group. As a general rule, it can be assumed that the learning effect will improve with more active participation from the group i.e. Using a brainstorming and asking a challenging question and urging the participants to solve it in self-directing group work, this will have the best effect. The trainer steps back into the role of a resource person and gives input in order to involve and empower the participants to solve the problem on their own. Examples:

- Analysing accidents, near misses, work related diseases (possibly including use of video cameras)
- Improving work processes in order to reduce stress
- Identifying ways and means to improve safe behaviour
- Developing a concept on how to induct apprentices. This task could be given to a group of older apprentices

An evaluation and follow-up of the training is necessary to establish whether the objectives have been met, and to get ideas for the future improvements of the training units by an “ex ante” test an “in itinere” and an “expost” test and participant oral feedback, and observations of a co-trainer. So that participants can get an idea where improvement may be needed.
1.7. Assessment, impact on health and safety

“The most important issue remains: has the training contributed to a reduction in numbers and severity of accidents and cases of work related diseases? Baker & Wallerstein point to some methodological problems: ‘Evaluations that look at workplace outcomes, particularly injury and illness incidence rates, can be deceptive. [...] For example, management safety promotion efforts often include incentives for keeping accident rates low (e.g. by offering a prize to the crew with the least accidents in a year). These promotional efforts result in under-reporting of accidents and often do not represent actual safety and health conditions on the job. Conversely, empowerment-oriented training encourages workers to recognise and report safety and health problems and may result, at first, in an increase in reported injuries and illnesses, even when safety and health conditions are actually improving.’

They continue to note that ‘as safety and health training programmes have begun to adopt empowerment and popular education goals and methods, evaluation protocols have been broadened to include assessment of worker actions back at the worksite as well as actual worksite changes. Social action objectives require long-term evaluation that assesses changes on both the individual level and on the environmental and organisation level, and the interaction between individual and environmental change. Follow-up is critical for this long-term evaluation. Follow-up phone calls, surveys or even new sessions may be used not only to assess change, but also to support the students/workers in applying their new knowledge, skills, inspiration or social action resulting from training.’ (7)

Burke and colleagues conducted a study in the USA to determine the relative effectiveness of different methods of OSH training. Ninety-five quasi-experimental studies (n=20991) were included in the analysis. Three types of intervention methods were distinguished on the basis of learners’ participation in the training process: least engaging (lecture, pamphlets, videos), moderately engaging (programmed instruction, feedback interventions), and most engaging (training in behavioural modelling, hands-on training). As training methods became more engaging (i.e. requiring trainees’ active participation), workers demonstrated greater knowledge acquisition, and reductions were seen in accidents, illnesses, and injuries. They concluded:

Training involving behavioural modelling, a substantial amount of practice, and dialogue is generally more effective than other methods of safety and health training. The present findings challenge the current emphasis on more passive computer-based and distance training methods within the public health workforce.

The EU-OSHA identified a number of success factors, amongst others:

- Motivation and commitment of senior staff and management to OSH, which can include their presence at training sessions;
- Providing workplace training in the context of an effective overall safety management system to prevent workplace risks. Training alone is not effective in reducing risks;
- Using peers, including more experienced young workers, and older, experienced workers as mentors. This provides a positive experience for new and more senior colleagues alike;
- Using active, participatory learning methods, e.g. where young people learn to recognise hazards and examine and solve real work problems, in real workplaces, where possible;
• Feeding the results of such studies back into the real workplace risk assessment and prevention process. This makes the exercise meaningful for youngsters and is of value to employers;
• Training supervisors, mentors and trainers in their role and in OSH;
• Making OSH training and skills development an integral part of lifelong training and development. By law, OSH should not only be a ‘one-off’ training at the start of work. OSH training is an important complementary measure for all OSH activities. In order to become more effective, objectives, content and methods should be constantly reviewed. In order to make safe behaviour ‘second nature’, it should become an integral part of lifelong learning, starting with risk education in schools.” (8)

1.8. Legal Aspects of Existing Training Regulations in Italy

The European Framework Directive (1989/391/EEC) has been applied in Italy with the Legislative Decree n. 626/1994 (9): Chapter 6 of Title 1 lays down the employer’s duty to provide the worker with adequate information on the risks to health and safety related to the activities of the undertaking in general, the measures and activities of protection and prevention adopted on the specific risks that the worker is exposed in relation to the activities carried out, the hazards associated with the use of hazardous substances and preparations on the basis of safety data sheets, first aid (art.15) procedures, firefighting and evacuation of workers (arts.12,13).

Article 22 of the same Legislative Decree n. 626/94 deals with the formation of workers in the field of health and safety, with particular reference to their workplace and duties; the L.D. recalls the points of the European Directive, namely that training should take place at the assumption, transfer or change of duty, the introduction of new work equipment or new technologies, new dangerous substances and preparations and which must be repeated periodically in relation to the evolution of risk or the emergence of new risks. All this complex of provisions is to demonstrate the particular importance that the legislator wants to give to the training and information of the worker as a primary and fundamental prerequisite for proper prevention, which, in the direct involvement of the individuals concerned, finds its best application and completeness.

The approach from the legislative decree involves a different operative and participative behaviour on the part of the worker, not as a coercion and hence as a passive subject, but subjectively and responsibly on a broad pertinent formative and informative basis, plus a concept of subjective and behavioural prevention linked to self-control and adaptation procedures in production.

Legislative Decree n. 626/1994 was completely transposed into the so-called Single Work Safety Act (Legislative Decree n. 81/2008 (10), which was subsequently incorporated by Legislative Decree no. n. 106 of 3 August 2009 (11) laying down supplementary and corrective provisions. The rules contained in the so-called “correctional decree” came into force on 20 August 2009.

Article 36 of Legislative Decree no. 81/2008 and subsequent amendments, requires the employer to make sure that each worker receives proper information and training about health and safety risks work related to the general activities in the company premises, about procedures regarding first aid, firefighting and evacuation from the workplace.

Legislative Decree no. 81/2008 identifies among the general measures for the protection of health and safety at work, information, training and practical training.
- **Training**: is the educational process by which employees and other subjects of the company's prevention and protection system transfer knowledge and procedures to the acquisition of skills for the safe behaviour of their respective tasks in the company and identification, reduction and management of risk.

- **Information**: is the set of activities aimed at providing knowledge useful for identifying, reducing and managing risks in work environments

- **Practical Training**: is the set of activities aimed at teaching workers the correct use of equipment, machines, plants, substances, devices, including personal protection, and working procedures.

Legislative Decree no. 81/2008 assigns precise tasks and responsibilities about training and information to the following figures and entities:

- Employers, managers
- Supervisor
- Occupational Physician
- Protective and Preventive Service Manager (PPSM)
- Protective and Preventive Service Operator (PPS)
- Joint Committee

### 1.9. Information and training

**Information**

The employer, as well as the manager in the context of his assignment and competencies, must ensure that each worker receives adequate information, according to art. 36 of the L.D. no. 81/08 Legislature assigns to the employer the power to confer an operational delegation on a third party, without prejudice to the inalienability of its responsibilities.

The Law leaves full freedom to the obligated persons on the ways of providing information, stating the need for the information message to be readily understood by the worker. Relevant aspects of the concrete way in which information should be provided, to meet the characteristics of adequacy, specificity and particularity.

It is appropriate for the employer to document both the delivery and the quality of the information; it is advisable to give the information accompanied by a dossier and draw up a minute of the meeting signed by the attendees, containing the information content, the comments of the present and the feedback given to them, the place of the meeting, the date with the time of start and finish of the session.

Unlike training, it is not necessary for information to take place in classrooms, through deliveries, slides, etc. For example, in order to inform workers of the names of corporate safety figures (Worker's Safety Representative, PPSM, PPSO, etc.) etc., it may be sufficient to deliver a document containing the necessary information.

**Training**

Regarding training, art. 18 of L.D. n. 81/08 identifies in the employer and in the manager the subjects required to ensure that each worker receives adequate information and adequate training in safety and health, with particular reference to his workplace and to his duties.
Article 37 of Legislative Decree no. 81/2008 (Formation of workers and their representatives) represents the fundamental obligations in this matter, sanctioning as “criminal offenses” the omissions of the employer according to his obligation of workers training. The latter involves the following persons responsible of the vocational training:

- Worker
- Manager
- Supervisor
- Workers' Safety Representative (WSR)
- Workers with tasks of first aid, firefighting and evacuation
- Components of the Prevention and Protection Service, which have attended training as a prerequisite for carrying out their functions
- Employer, both as a user of work equipment and as a person in charge of carrying out first aid and firefighting, and finally where he performs in person the role of the Prevention and Protection Service Manager (PPSM) (Responsible Prevention and Protection Service) in his own company.

The primary purpose of providing training to workers is to enable these subjects to acquire the ability to take care of their own safety and health, and, where appropriate, that of their work colleagues. The skills gained following the conduct of the training activities must be recorded in the 'Educational Form of the Citizen’ referred to in art. 2, paragraph 1, letter I) of Legislative Decree no. 276/2003. (12)

Art. 37, paragraph 4, stipulates training of workers must take place in each case:
- at the time when the employment or recruitment takes place in cases of employment;
- in case of transfers or changes of duties;
- in case of introduction of new work equipment or new technologies, new dangerous substances and preparations

Besides, training of workers and their representatives shall be carried out, in cooperation with “Joint Committee”, when they are present on the territory in which the employer is active during the working hours and this training must not have economic burdens on workers.

The duration, the minimum content and the training arrangements for workers have been established by the Agreement Government-Regions of 21/12/2011 (13), by the Agreement Government-Regions 22/02/2012 (14) and by the Agreement Government-Regions 07/07/2016. (15) Point 4 of the Agreement stipulates that training of workers must be articulated, since 26/01/2012, in two distinct forms:

- the first of general training of a duration of not less than 4 hours, inherent in the general concepts of prevention and safety at work;
- the second of the specific training of the minimum variable duration according to the risk characterizing the working activity.
The duration of the specific module can therefore be four, eight, twelve hours, corresponding to the **low, medium or high-risk classifications**. The total of training hours delivered throughout the training course will therefore be at least eight, twelve or sixteen hours, according to the company's classification in the macro-category of risk and corresponding to ATECO codex. **General training** should be of the same duration for all macro-category of risk and should be devoted to the presentation of general concepts on prevention and safety at work, dealing with the following topics:

- Introduction to workplace safety
- Work related risk
- Work related damage
- Risk Prevention.
- Damage Protection
- Organization of Company Prevention.
- Rights, duties and sanctions for various business personnel.
- Supervisory, control and assistance bodies.

These topics include:

- an introduction to occupational safety, to the basic concepts and general framework for the application of legislation
- the concept of workplace risk, including assessment methods and related obligations (safety risks, health risk, transversal risk)
- how to assess and avoid the damage suffered in terms of workplace safety; introduction to the risk assessment, accidents at work and occupational illnesses
- the concept of prevention and protection and the main measures that apply to the risks; personal protective equipment, near misses, emergency plan
- Identify the tasks and attributes of figures involved in health and safety at work within the business system (Employer, RSPP, ASPP, RLS, manager, superintendent, competent doctor, first aid worker, firefighter worker, workers)
- rights, duties and sanctions for various corporate subjects; how health and safety responsibilities are dealt with in accordance with Italian legislation
- supervisory, control and assistance bodies. Competences and procedures for controlling the bodies responsible for health and safety at work.

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