



International
Labour
Organization

BUILDING A PREVENTATIVE SAFETY AND HEALTH CULTURE IN CONSTRUCTION

A guide to the Safety and Health in Construction Convention, 1988 (No. 167)
and Recommendation (No. 175)

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INTRODUCTION

The construction sector is one of the leading industrial sectors in Turkey. Despite globalization, the existence of an international construction industry, and the fact that many construction activities involve the erection of large and technically complex structures, most construction activities are still undertaken by small, local, on-site construction entities. The industry remains labour intensive, with frequent changes of working environment, many different parties and high rates of staff turnover involving an increasing number of migrant workers.

The hazardous nature of the construction industry is a challenge and preventing occupational accidents and diseases places high demands on all involved. In order to tackle these challenges, and as part of Turkey's ongoing efforts to improve its national OSH system, Turkey became a party to the ILO Safety and Health in Construction Convention, 1988 (No. 167) on 25 March 2016. This sectoral Convention complements the Occupational Safety and Health Convention, 1981 (No. 155) and the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187) ratified by Turkey in 2005 and 2014 respectively.

Convention No. 167 aims to achieve a progressive improvement of OSH in all construction activities including building activities, civil engineering and the erection and dismantling of prefabricated buildings and structures. This guide details the requirements in Convention No. 167 as well as the supplementing guidance provided in the Safety and health In Construction Recommendation, 1988 (No. 164).

The preamble to Convention No. 167 recalls that risks in the construction sector may also be addressed through ILO standards on protection from specific hazards, including asbestos and radiation. Workers in the construction sector may be at risk of occupational exposure to asbestos, particularly those working in demolition, the disposal of contaminated debris and renovation. The Asbestos Convention, 1986 (No.162), provides guidance on all activities involving the exposure of workers to asbestos during work, including construction. With respect to exposure to radiation, Recommendation No. 175 contains guidance on the protection of workers engaged in the maintenance, renovation,

demolition or dismantling of any buildings in which there is a risk of exposure to ionizing radiations, in particular in the nuclear power industry, and it refers in this regard in its preamble to the Radiation Protection Convention, 1960 (No. 115), and its accompanying Recommendation. Other international labour standards particularly relevant to safety and health in the sector include those on protection against specific risks, including the Occupational Cancer Convention, 1974 (No. 139), and the Working Environment (Air Pollution, Noise and Vibration) Convention, 1977 (No. 148).

In terms of guidance on ILO instruments, ILO General Surveys are an important source of information as they include analyses of the impact of ILO instruments, the difficulties indicated by governments as impeding their application, and means of overcoming these obstacles. The 2017 General Survey focuses on the ILO instruments concerning the promotional framework, construction, mines and agriculture and includes an examination of the effect given, in law and in practice, by ILO member States of Convention No. 167. Further guidance on law and practice regarding ILO instruments on OSH is available in the 2006 General Survey concerning the Convention No. 155, its Recommendation No. 164 and its Protocol of 2002. The present guide also includes information regarding this and further guidance material.

SCOPE OF APPLICATION

ACTIVITIES COVERED

The Convention applies to all construction activities, from the preparation of the site to the completion of the project, including any process, operation or transport on a construction site. Its application is not limited to construction activities of a certain scale. It covers *building activities* - including excavation and the construction, structural alteration, renovation, repair, maintenance (including cleaning and painting) and demolition of all types of buildings or structures; *engineering activities* - including excavation and the construction, structural alteration, repair, maintenance and demolition of, for example, airports, docks, harbors, inland waterways, dams, river and avalanche and sea defense works, roads and highways, railways, bridges, tunnels, viaducts and works related to the provision of services such as communications, drainage, sewerage, water and energy supplies; and the erection and dismantling of prefabricated buildings and structures including any process, operation or transport on a construction site.

The Recommendation adds that the provisions of the Convention should also be applied to the fabrication and erection of oilrigs, and of offshore installations while under construction on shore. halinde bulunan açık deniz kurulumlarının üretimi ve montajı için de geçerlidir.

PERSONS COVERED

A *worker* is defined as ‘any person engaged in construction’. An *employer* is defined as ‘any physical or legal person who employs one or more workers on a construction site and - as the context requires – *the principal contractor, the contractor or the subcontractor*’. The Convention also applies to self-employed persons as may be specified by national laws or regulations. Furthermore, the Convention requires that all appropriate precautions be taken to protect *persons present at or near* a construction site from all risks which may arise from such site. In addition, when the demolition of any building or structure might present danger to workers or to *the public*, appropriate precautions,

methods and procedures shall be adopted, including those for the disposal of waste or residues, in accordance with national laws or regulations.

AREAS COVERED

The Convention applies to construction sites defined as ‘any sites at which any of the relevant processes or operations are carried out’. For the purposes of the instruments, a workplace is defined as ‘all places where workers need to be or to go by reason of their work and which are under the control of an employer’.

CONSULTATIONS ON IMPLEMENTATION

Convention No. 167 requires consultations with the most representative organizations of employers and workers concerned on the measures to be taken to implement it. While this is not an express requirement to develop a national policy on safety and health in construction, Turkey is required to formulate, implement and periodically develop a national policy on OSH pursuant to Convention Nos. 155 and 187 which should encompass OSH in construction. Furthermore, in the 2017 General Survey (para 121) the CEACR emphasized the importance of social dialogue and encouraged all governments to undertake consultations with the most representative organizations of employers and workers concerned on cross-sectoral and specific measures that can be taken to improve OSH in the construction sector. For national practice in this respect globally, see the 2017 General Survey paras 118-120.

The most representative organizations of employers and workers concerned shall be consulted on measures to be taken to give effect to the provisions of Convention No. 167.

DEFINED RIGHTS, RESPONSIBILITIES AND DUTIES

THE GOVERNMENT

Convention No. 167 establishes obligations for governments to regulate and monitor issues related to OSH in construction. Such measures must include the adoption of laws and regulations, as well as all necessary measures to ensure their effective enforcement, including the provision of appropriate inspection services and of appropriate penalties and corrective measures. The inspection services should comply with the provisions in the Labour Inspection Convention, 1947 (No. 81) to which Turkey is a party. Convention No. 167 also provides that the Government shall provide these inspection services with the resources necessary for the accomplishment of their task, or satisfy itself that appropriate inspection is carried out. For national practice globally, see 2017 General Survey, paras. 445-452.

RESPONSIBILITY TO ADOPT LAWS AND REGULATIONS - The Convention provides that the Government is required, based on an assessment of the safety and health hazards involved, to adopt and maintain in force laws or regulations which ensure the application of the provisions of the Convention.

RESPONSIBILITY TO PROVIDE FOR TECHNICAL STANDARDS AND CODES OF PRACTICE - The laws and regulations may provide that they should be applied in practice through technical standards or codes of practice, or by other appropriate methods consistent with national conditions and practice. In this context, account shall be taken of relevant standards adopted by recognized international organizations in the field of standardization.¹

RESPONSIBILITY TO ENSURE EFFECTIVE ENFORCEMENT - The Government shall take all necessary measures, including the provision of appropriate penalties and correc-

¹ See also the ILO [Code of Practice Safety and Health in Construction, 1992](#)

tive measures, to ensure the effective enforcement of the provisions of the Convention.

RESPONSIBILITY TO PROVIDE FOR INSPECTION SERVICES - The Government shall provide appropriate inspection services to supervise the application of the measures to be taken in pursuance of the Convention and provide these services with the resources necessary for the accomplishment of their task, or satisfy itself that appropriate inspection is carried out.

EMPLOYERS

According to Convention No. 167 employers and self-employed persons are required to comply with prescribed safety and health measures at the workplace. Article 4 (1) of the Occupational Safety and Health Law (Act 6331) provides that the employers have the “duty to ensure the safety and health of workers in every aspect related to the work.” As noted previously, under Convention No. 167, employers may include the principal contractor, the contractor or the subcontractor as the context requires.

DUTY TO COMPLY WITH PRESCRIBED OSH MEASURES - National laws or regulations shall require that employers and self-employed persons have a duty to comply with the prescribed safety and health measures at the workplace.

The Recommendation adds that national laws or regulations should require that employers and self-employed persons have a general duty to provide a safe and healthy workplace and to comply with the prescribed safety and health measures.

DUTY TO STOP WORK AND EVACUATE WORKERS IN CASES OF IMMINENT DANGER - Where there is an imminent danger to the safety of workers the employer shall take immediate steps to stop the operation and evacuate workers as appropriate.

DUTY TO PROVIDE FOR FIRST AID AND MEDICAL TRANSPORTATION - The employer shall be responsible for ensuring that first aid, including trained personnel, is always available. Arrangements shall be made for ensuring the removal for medical attention of workers who have suffered an accident or sudden illness.

The Recommendation adds that the manner in which first-aid facilities and personnel are to be provided should be prescribed by national laws or regulations drawn up after consulting the competent health authority and the most representative organizations of employers and workers concerned and that where the work involves risk of drowning, asphyxiation or electric shock, first-aid personnel should be proficient in the use of resuscitation and other life-saving techniques and in rescue procedures.

WORKERS

Convention No. 167 prescribes that the workers have the right and duty to participate in ensuring safe working conditions and the right to leave situations of imminent and serious danger. It also prescribes that the workers have the duty to take reasonable care, to ensure due a proper use of facilities, to report situations which could represent risk and to comply with prescribed OSH measures,

RIGHT AND DUTY TO PARTICIPATE IN ENSURING SAFE WORKING CONDITIONS - National laws or regulations shall provide that workers shall have the right and the duty at any workplace to participate in ensuring safe working conditions to the extent of their control over the equipment and methods of work and to express views on the working procedures adopted as they may affect safety and health.

RIGHT TO LEAVE SITUATIONS OF IMMINENT AND SERIOUS DANGER - A worker shall have the right to remove himself from danger when he has good reason to believe that there is an imminent and serious danger to his safety or health, and the duty so to inform his supervisor immediately.

DUTY TO TAKE REASONABLE CARE - Workers shall have the duty to take reasonable care for their own safety and health and that of other persons who may be affected by their acts or omissions at work;

DUTY TO ENSURE DUE AND PROPER USE OF FACILITIES - Workers shall have the duty to use facilities placed at their disposal and not misuse anything provided for their own protection or the protection of others.

DUTY TO REPORT SITUATIONS WHICH COULD REPRESENT RISK - Workers shall have the duty to report forthwith to their immediate supervisor, and to the workers' safety representative where one exists, any situation which they believe could present a risk, and which they cannot properly deal with themselves;

DUTY TO COMPLY WITH PRESCRIBED OSH MEASURES - Workers shall have the duty to comply with the prescribed safety and health measures.

COOPERATION

Cooperation is essential in all areas of OSH. In construction, the Convention requires cooperation not only between employers and workers but also between employers when several employers undertake activities simultaneously at one construction site as well as between employers and self-employed persons. The Recommendation adds that there should be organized co-operation between employers and workers which should include safety and health committees; the election or appointment and training of workers' safety delegates; and the appointment by the employer of suitably qualified and experienced persons to promote safety and health. Act 6331 gives effect to this latter provision, as Articles 6 and 8 require the Employer to appoint occupational safety specialists, occupational physicians and other health to provide OSH services including activities related to the protection and prevention of occupational risks as the workplace.

COOPERATION BETWEEN EMPLOYERS AND WORKERS

To promote safety and health at construction sites, the Convention provides that measures shall be taken to ensure that there is co-operation between employers and workers, in accordance with arrangements to be defined by national laws or regulations.

The Recommendation adds that measures should be taken to ensure that there is organized co-operation between employers and workers to promote safety and health at construction sites prescribed by national laws or regulations or by the competent authority. It adds that such measures should include:

- the establishment of safety and health committees where employers and workers are represented with such powers and duties as may be prescribed;
- the election or appointment of workers' safety delegates (representative) with such powers and duties as may be prescribed;

- the appointment by the employer of suitably qualified and experienced persons to promote safety and health; and
- the training of safety delegates and safety committee members.

The Convention provides that workers shall have the duty to co-operate as closely as possible with their employer in the application of the prescribed safety and health measures.

COOPERATION BETWEEN TWO OR MORE EMPLOYERS

The Convention requires that whenever two or more employers undertake activities simultaneously at one construction site, the principal contractor, or other person or body with actual control over or primary responsibility for overall construction site activities, shall be responsible for coordinating the prescribed safety and health measures and, in so far as is compatible with national laws and regulations, for ensuring compliance with such measures.

The Recommendation adds that whenever two or more employers undertake activities at one construction site, they should have the duty to co-operate with one another as well as with any other persons participating in the construction work being undertaken, including the owner or his representative, in order to comply with the prescribed safety and health measures

The Convention further provides that, in so far as is compatible with national laws and regulations, where the principal contractor, or other person or body with actual control over or primary responsibility for overall construction site activities, is not present at the site, he shall nominate a competent person or body at the site with the authority and means necessary to ensure on his behalf co-ordination and compliance with the measures foreseen above.

Furthermore, each employer shall remain responsible for the application of the prescribed measures in respect of the workers placed under his authority.

The Recommendation adds that the ultimate responsibility for the co-ordination of safety and health measures on a construction site should rest with the principal contractor or such other person as is primarily responsible for the execution of the work.²

² In the 2017 General Survey, para 268, it is stated that “Having regard to the specific risks of the construction industry and the proliferation of subcontracting in the sector, the Committee emphasizes that the promotion of OSH compliance relies heavily on the adequate allocation of responsibilities among the parties involved in a construction project. The Committee, therefore, encourages governments to take measures to regulate the situation of multiple-contracting, including subcontracting, with regard to OSH obligations, and in particular the attribution of responsibility to one party for coordinating safety and health measures and for ensuring compliance with such measures, with a view to preventing occupational accidents and diseases.”

COOPERATION BETWEEN EMPLOYERS AND SELF-EMPLOYED PERSONS

The Convention provides that whenever employers or self-employed persons undertake activities simultaneously at one construction site they shall have the duty to co-operate in the application of the prescribed safety and health measures, as may be specified by national laws or regulations.

PREVENTIVE AND PROTECTIVE MEASURES

PREPARATION AND PLANNING

A basic objective of the Convention is prevention and account shall be taken of safety and health already at the design and planning stages of a construction project. The Convention does not specifically provide for undertaking risk assessments, but this is a general requirement pursuant to Article 4(3) of the Act 6331. It is also a common good practice in the construction sector. The preventive and protective measures concerning the handling of certain tools and equipment often require the involvement of a competent person and the Convention regulates the requirements such persons shall comply with. In many cases the preventive and protective measures also include a requirement that workers shall receive specific training in the handling of these tools and equipment.

The Convention requires that those concerned with the design and planning of a construction project shall take into account the safety and health of the construction workers in accordance with national laws.

The Recommendation adds that those concerned with the design and planning of a construction project should take into account the safety and health of the construction workers in accordance with national laws, regulations and practice; that construction work should be planned, prepared and undertaken in such a way that risks liable to arise at the workplace are prevented as soon as possible; that excessively or unnecessarily strenuous work positions and movements are avoided; that organization of work takes into account the safety and health of workers; that materials and products are used which are suitable from a safety and health point of view; and that working methods are employed which protect workers against the harmful effects of chemical, physical and biological agents. The Recommendation also adds that national laws or regulations should provide for the notification to the competent authority of construction sites of such size, duration or characteristics as may be prescribed.

As regards electricity, the Convention specifically provides that before construction is commenced and during the progress thereof, adequate steps shall be taken to ascertain the presence of and to guard against danger to workers from any live electrical cable or apparatus which is under, over or on the site.

SAFETY OF WORKPLACES

APPROPRIATE PRECAUTIONS - All appropriate precautions shall be taken to ensure that all workplaces are safe and without risk of injury to the safety and health of workers. Safe means of access to and egress from all workplaces shall be provided and maintained, and indicated where appropriate. All appropriate precautions shall be taken to protect persons present at or near a construction site from all risks which may arise from such site.

The Recommendation adds that housekeeping programmes should be established and implemented on construction sites which should include provision for the proper storage of materials and equipment and for the removal of waste and debris at appropriate intervals.

PROVISION OF INFORMATION AND TRAINING - Workers shall be adequately and suitably informed of potential safety and health hazards to which they may be exposed at their workplace; instructed and trained in the measures available for the prevention and control of, and protection against, those hazards.

PROVISION OF PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING - Where adequate protection against risk of accident or injury to health, including exposure to adverse conditions, cannot be ensured by other means, suitable personal protective equipment and protective clothing, having regard to the type of work and risks, shall be provided and maintained by the employer, without cost to the workers, as may be prescribed by national laws or regulations. The employer shall provide the workers with the appropriate means to enable them to use the individual protective equipment, and shall ensure its proper use. Protective equipment and protective clothing shall comply with standards set by the competent authority taking into account as far as possible ergonomic principles. Workers shall be required to make proper use of and to take good care of the personal protective equipment and protective clothing provided for their use.

The Recommendation adds that the employer should provide the workers with the appropriate means to enable them to use individual protective equipment and should ensure its proper use and that protective equipment and protective clothing should comply with standards set by the competent authority, taking into account as far as possible ergonomic principles.

PROVISION OF WELFARE - At or within reasonable access of every construction site an adequate supply of wholesome drinking water shall be provided. At or within reasonable access of every construction site, the following facilities shall, depending on the number of workers and the duration of the work, be provided and maintained sanitary and washing facilities; facilities for changing and for the storage and drying of

clothing; accommodation for taking meals and for taking shelter during interruption of work due to adverse weather conditions. Men and women workers should be provided with separate sanitary and washing facilities.

The Recommendation provides that, in appropriate cases, depending on the number of workers, the duration of the work and its location, adequate facilities for obtaining or preparing food and drink at or near a construction site should be provided, if they are not otherwise available, and that suitable living accommodation be made available for the workers at construction sites which are remote from their homes, where adequate transportation between the site and their homes or other suitable living accommodation is not available. It is also recommended that men and women workers be provided with separate sanitary, washing and sleeping facilities.

PREVENTIVE MEASURES IN CASES OF EXPOSURE TO CHEMICAL, PHYSICAL OR BIOLOGICAL HEALTH HAZARDS

APPROPRIATE PREVENTIVE MEASURES - Where a worker is liable to be exposed to any chemical, physical or biological hazard to such an extent as is liable to be dangerous to health, appropriate preventive measures shall be taken against such exposure. These preventive measures shall include the replacement of hazardous substances by harmless or less hazardous substances wherever possible; or technical measures applied to the plant, machinery, equipment or process. Where it is not possible to comply with these requirements, the preventive measures shall include other effective measures, such as the use of personal protective equipment and protective clothing. Where workers are required to enter any area in which a toxic or harmful substance may be present, or in which there may be an oxygen deficiency, or a flammable atmosphere, adequate measures shall be taken to guard against danger.

The Recommendation adds that the measures regarding dangerous atmospheres should include prior written authority or permission from a competent person, or any other system by which entry into any area in which a dangerous atmosphere may be present can be effected only after completing specified procedures.

HANDLING OF WASTE - Waste shall not be destroyed or otherwise disposed of on a construction site in a manner which is liable to be injurious to health.³

The Recommendation adds that in the use of materials that contain hazardous substances and in the removal and disposal of waste, the health of workers and of the public and the preservation of the environment should be safeguarded as prescribed by national laws and regulations.

³ Guidance regarding the disposal of waste containing asbestos can be found in Convention No. 162 which, in relevant parts, provides that employers shall dispose of waste containing asbestos in a manner that does not pose a health risk to [...] the population in the vicinity of the enterprise, and that, appropriate measures shall be taken by the competent authority and by employers to prevent pollution of the general environment by asbestos dust released from the workplace (Art. 19(1-2)).

RADIATION HAZARDS

The Recommendation provides that stringent safety regulations should be drawn up and enforced by the competent authority with respect to construction workers engaged in the maintenance, renovation, demolition or dismantling of any buildings in which there is a risk of exposure to ionizing radiations, in particular in the nuclear power industry.⁴

HEALTH HAZARDS

The Recommendation provides that

- An information system should be set up by the competent authority, using the results of international scientific research, to provide information for architects, contractors, employers and workers' representatives on the health risks associated with hazardous substances used in the construction industry.
- Manufacturers and dealers in products used in the construction industry should provide with the products information on any health risks associated with them and on the precautions to be taken.
- Dangerous substances should be clearly marked and provided with a label giving their relevant characteristics and instructions on their use. They should be handled under conditions prescribed by national laws and regulations or by the competent authority.
- The competent authority should determine which hazardous substances should be prohibited from use in the construction industry.
- The competent authority should keep records of monitoring of the working environment and assessment of workers' health for a period prescribed by national laws and regulations.
- The manual lifting of excessive weights which presents a safety and health risk to workers should be avoided by reducing the weight, using mechanical devices or by other means.

REQUIREMENTS CONCERNING THE CONSTRUCTION SITE, TOOLS AND EQUIPMENT

The Convention provides for detailed requirements regarding the construction site, its tools and equipment. It requires in several cases that a “competent person” should monitor installations and the handling of tools and equipment and defines the requirements for such a competent person. The Recommendation provides that the safety of construction machinery and equipment generally should be examined and tested by type or individually, as appropriate, by a competent person.

⁴ Turkey is bound by the ILO [Radiation Protection Convention, 1960 \(No. 115\)](#)

DESIGNATION OF “COMPETENT PERSONS” - A *competent person* is a person possessing adequate qualifications, such as suitable training and sufficient knowledge, experience and skill for the safe performance of the specific work. The competent authorities may define appropriate criteria for the designation of such persons and may determine the duties to be assigned to them.

The Recommendation provides generally that the safety of construction machinery and equipment should be examined and tested by type or individually, as appropriate, by a competent person.

SAFETY OF CONSTRUCTION TOOLS AND EQUIPMENT

The Recommendation provides that the design of construction equipment, tools, protective equipment and other similar equipment should take account of ergonomic principles, that the safety of construction machinery and equipment should be examined and tested by type or individually, as appropriate, by a competent person and that national laws and regulations should take into consideration the fact that occupational diseases may be caused by machinery, apparatus and systems which do not take account of ergonomic principles in their design.

LIGHTING - The Convention provides that adequate and suitable lighting, including portable lighting where appropriate, shall be provided at every workplace and any other place on the construction site where a worker may have to pass.

ELECTRICITY - In addition to the requirements concerning electricity to be complied with at the preparatory stages of a construction site⁵, the Convention provides that all electrical equipment and installations shall be constructed, installed and maintained by a competent person, and so used as to guard against danger. The laying and maintenance of electrical cables and apparatus on construction sites shall be governed by the technical rules and standards applied at the national level.

EXPLOSIVES - Explosives shall not be stored, transported, handled or used except under conditions prescribed by national laws or regulations; and by a competent person, who shall take such steps as are necessary to ensure that workers and other persons are not exposed to risk of injury.

FIRE PRECAUTIONS - The employer shall take all appropriate measures to avoid the risk of fire; combat quickly and efficiently any outbreak of fire; bring about a quick and safe evacuation of persons. Sufficient and suitable storage shall be provided for flammable liquids, solids and gases.

The Recommendation adds that, where necessary to guard against danger, workers should be suitably trained in the action to be taken in the event of fire, including the use of means of escape and that, where appropriate suitable visual signs be provided to indicate clearly the directions of escape in case of fire.

⁵ See above, under “Preparation and Planning.”

EXCAVATIONS, SHAFTS, EARTHWORKS, UNDERGROUND WORKS AND TUNNELS - Adequate precautions shall be taken in any excavation, shaft, earthworks, underground works or tunnel by suitable shoring or otherwise to guard against danger to workers from a fall or dislodgement of earth, rock or other material; to guard against dangers arising from the fall of persons, materials or objects or the inrush of water into the excavation, shaft, earthworks, underground works or tunnel; to secure adequate ventilation at every workplace so as to maintain an atmosphere fit for respiration and to limit any fumes, gases, vapours, dust or other impurities to levels which are not dangerous or injurious to health and are within limits laid down by national laws or regulations; to enable the workers to reach safety in the event of fire, or an inrush of water or material; to avoid risk to workers arising from possible underground dangers such as the circulation of fluids or the presence of pockets of gas, by undertaking appropriate investigations to locate them.

The Recommendation adds that shoring or other support for any part of an excavation, shaft, earthworks, underground works or tunnel should not be erected, altered or dismantled except under the supervision of a competent person. It also adds that every part of an excavation, shaft, earthworks, underground works and tunnel where persons are employed should be inspected by a competent person at the times and in the cases prescribed by national laws or regulations, and the results recorded and that work should not be commenced therein until after such an inspection.

PLANT, MACHINERY, EQUIPMENT AND HAND TOOLS - Plant, machinery and equipment, including hand tools, both manual and power driven, shall be of good design and construction, taking into account, as far as possible, ergonomic principles; be maintained in good working order; be used only for work for which they have been designed unless a use outside the initial design purposes has been assessed by a competent person who has concluded that such use is safe; and be operated by workers who have received appropriate training. Adequate instructions for safe use shall be provided where appropriate by the manufacturer or the employer, in a form understood by the users. Pressure plant and equipment shall be examined and tested by a competent person in cases and at times prescribed by national laws or regulations.

TRANSPORT, EARTH-MOVING AND MATERIALS-HANDLING EQUIPMENT - All vehicles and earth-moving or materials-handling equipment shall be of good design and construction taking into account, as far as possible, ergonomic principles; be maintained in good working order; be properly used; be operated by workers who have received appropriate training in accordance with national laws and regulations. On all construction sites on which vehicles, earth-moving or materials-handling equipment are used safe and suitable access ways shall be provided for them; and traffic shall be so organized and controlled as to secure their safe operation.

The Recommendation adds that the drivers and operators of vehicles and of earth-moving or materials-handling equipment should be persons trained and tested as required by national laws or regulations; that adequate signalling or other

control arrangements or devices should be provided to guard against danger from the movement of vehicles and earth-moving or materials-handling equipment. Special safety precautions should be taken for vehicles and equipment when maneuvering backwards; that preventive measures should be taken to avoid the fall of vehicles and earth-moving and materials-handling equipment into excavations or into water and that, where appropriate, earth-moving and materials-handling equipment should be fitted with structures designed to protect the operator from being crushed should the machine overturn, and from falling material.

LIFTING APPLIANCES AND GEAR - The Convention defines lifting appliance as ‘any stationary or mobile appliance used for raising or lowering persons or loads’, and a lifting gear as ‘any gear or tackle by means of which a load can be attached to a lifting appliance but which does not form an integral part of the appliance or load’. It provides that every lifting appliance and item of lifting gear, including their constituent elements, attachments, anchorages and supports, shall be of good design and construction, sound material and adequate strength for the purpose for which they are used; be properly installed and used; and be maintained in good working order. They shall be examined and tested by a competent person at such times and in such cases as shall be prescribed by national laws or regulations. The results of these examinations and tests shall be recorded.

The Recommendation adds that national laws or regulations should prescribe the lifting appliances and items of lifting gear which should be examined and tested by a competent person before being taken into use for the first time; after erection on a site; subsequently at intervals prescribed by such national laws or regulations; after any substantial alteration or repair. The results of these examinations and tests of lifting appliances and items of lifting gear should be recorded and, as required, made available to the competent authority and to employers and workers or their representatives. Every lifting appliance having a single safe working load and every item of lifting gear should be clearly marked with its maximum safe working load. Every lifting appliance having a variable safe working load should be fitted with effective means to indicate clearly to the driver each maximum safe working load and the conditions under which it is applicable. A lifting appliance or item of lifting gear should not be loaded beyond its safe working load or loads, except for testing purposes as specified by and under the direction of a competent person. Every lifting appliance and every item of lifting gear should be properly installed so as, inter alia, to provide safe clearance between any moving part and fixed objects, and to ensure the stability of the appliance. Where necessary to guard against danger, no lifting appliance should be used without the provision of suitable signaling arrangements or devices. The drivers and operators of such lifting appliances as are prescribed by national laws or regulations should be of a prescribed minimum age properly trained and qualified.

The Convention requires that every lifting appliance and item of lifting gear shall be operated by workers who have received appropriate training in accordance with national

laws and regulations. It also provides that no person shall be raised, lowered or carried by a lifting appliance unless it is constructed, installed and used for that purpose in accordance with national laws and regulations, except in an emergency in which serious personal injury or fatality may occur, and for which the lifting appliance can be safely used.

SCAFFOLDS AND LADDERS - Where work cannot safely be done on or from the ground or from part of a building or other permanent structure, a safe and suitable scaffold shall be provided and maintained, or other equally safe and suitable provision shall be made. A scaffold means any temporary structure, fixed, suspended or mobile, and its supporting components which is used for supporting workers and materials or to gain access to any such structure, and which is not a lifting appliance. In the absence of alternative safe means of access to elevated working places, suitable and sound ladders shall be provided. They shall be properly secured against inadvertent movement. All scaffolds and ladders shall be constructed and used in accordance with national laws and regulations. Scaffolds shall be inspected by a competent person in such cases and at such times as shall be prescribed by national laws or regulations.

The Recommendation adds that every scaffold and part thereof should be of suitable and sound material and of adequate size and strength for the purpose for which it is used and be maintained in a proper condition. Every scaffold should be properly designed, erected and maintained to prevent collapse or accidental displacement when properly used. The working platforms, gangways and stairways of scaffolds should be of such dimensions and so constructed and guarded as to protect persons against falling or being endangered by falling objects. No scaffold should be overloaded or otherwise misused. A scaffold should not be erected, substantially altered or dismantled except by or under the supervision of a competent person. Scaffolds as prescribed by national laws or regulations should be inspected, and the results recorded, by a competent person-before being taken into use; at periodic intervals thereafter; after any alteration, interruption in use, exposure to weather or seismic conditions or any other occurrence likely to have affected their strength or stability.

STRUCTURAL FRAMES AND FORMWORK - The erection of structural frames and components, formwork, falsework and shoring shall be carried out only under the supervision of a competent person. Adequate precautions shall be taken to guard against danger to workers arising from any temporary state of weakness or instability of a structure. Formwork, falsework and shoring shall be so designed, constructed and maintained that it will safely support all loads that may be imposed on it.

COFFERDAMS AND CAISSONS - Every cofferdam and caisson shall be of good construction and suitable and sound material and of adequate strength and provided with adequate means for workers to reach safety in the event of an inrush of water or material. The construction, positioning, modification or dismantling of a cofferdam or caisson shall take place only under the immediate supervision of a competent person. Every cofferdam

and caisson shall be inspected by a competent person at prescribed intervals.

PILE DRIVING

The Recommendation provides that all pile-driving equipment should be of good design and construction taking into account, as far as possible, ergonomic principles, and properly maintained and that pile driving should be carried out only under the supervision of a competent person.

REQUIREMENTS CONCERNING CERTAIN WORK SITUATIONS

WORK AT HEIGHTS INCLUDING ROOF-WORK - Where necessary to guard against danger, or where the height of a structure or its slope exceeds that prescribed by national laws or regulations, preventive measures shall be taken against the fall of workers and tools or other objects or materials. Where workers are required to work on or near roofs or other places covered with fragile material, through which they are liable to fall, preventive measures shall be taken against their inadvertently stepping on or falling through the fragile material.

The Recommendation adds that where workers cannot be protected against falls from heights by any other means adequate safety nets or safety sheets should be erected and maintained; or adequate safety harnesses should be provided and used.

WORK IN COMPRESSED AIR - Work in compressed air shall be carried out only in accordance with measures prescribed by national laws or regulations. Work in compressed air shall be carried out only by workers whose physical aptitude for such work has been established by a medical examination and when a competent person is present to supervise the conduct of the operations.

The Recommendation adds that the measures regarding work in compressed air should include provisions regulating the conditions in which the work is to be carried out, the plant and equipment to be used, the medical supervision and control of workers and the duration of work in compressed air and that a person should only be allowed to work in a caisson if it has been inspected by a competent person within such preceding period as is prescribed by national laws or regulations; the results of the inspection should be recorded.

WORK OVER OR CLOSE TO WATER - Where work is done over or near water there shall be adequate provision for preventing workers from falling into water; the rescue of workers in danger of drowning; safe and sufficient transport.

The Recommendation adds that the provisions regarding work over water should include, where appropriate, the provision and use of suitable and adequate fencing, safety nets and safety harnesses; life vests, life preservers, manned boats (motor

driven if necessary) and lifebuoys; and protection against such hazards as reptiles and other animals.

DEMOLITION - When the demolition of any building or structure might present danger to workers or to the public, appropriate precautions, methods and procedures shall be adopted, including those for the disposal of waste or residues, in accordance with national laws or regulations; the work shall be planned and undertaken only under the supervision of a competent person. ⁶

REPORTING OF ACCIDENTS AND DISEASES

Monitoring and measuring progress in the area of OSH is an important means to appreciate the impact of preventive and protective measures taken. One of the most frequently used tools for such purpose is to keep track of the rate of occupational accidents and diseases. Convention No. 167 requires national laws to provide for the reporting to the competent authorities of occupational accidents and diseases. Accordingly, Article 14 of the OSH Law (Act 6331) requires the employer to record and notify the Social Security Institution of occupational accidents and diseases. Further guidance is also provided in Article 11 c) of Convention No. 155, and its 2002 Protocol.

National laws or regulations shall provide for the reporting to the competent authority within a prescribed time of occupational accidents and diseases.

⁶ See also footnote 3, supra

FURTHER GUIDANCE

- For information on all ILO standards see the [NORMLEX](#) database.
- ILO standards ratified by Turkey are available on the website of the ILO Office for Turkey [in English](#) and [Turkish](#).
- [Occupational Safety and Health Convention, 1981 \(No. 155\)](#) and [Recommendation \(No. 164\)](#).
- [Promotional Framework for Occupational Safety and Health Convention, 2006 \(No. 187\)](#) and [Recommendation \(No. 197\)](#)
- Instruments of the ILO relevant to the promotional framework for occupational safety and health, Annex to Promotional Framework for Occupational Safety and Health Recommendation No. 197. http://www.ilo.org/dyn/normlex/en/f?p=1000:55:0::NO::P55_TYPE,P55_LANG,P55_DOCUMENT,P55_NODE:REC,en,R197,%2FDocument
- [ILO: Safety and health in construction: An ILO code of practice \(Geneva, 1992\)](#).
- ILO training package on occupational safety and health for the construction industry targeting workers, clients, contractors, as well as design and project management teams, http://www.ilo.org/sector/Resources/training-materials/WCMS_161706/lang--en/index.htm.
- ILO [General Survey concerning the Occupational Safety and Health Convention, 1981 \(No. 155\)](#), the [Occupational Safety and Health Recommendation, 1981 \(No. 164\)](#) and the [Protocol of 2002 to the Occupational Safety and Health Convention, 1981, Report of the Committee on the Application of Conventions and Recommendations \(Articles 19, 22 and 35 of the Constitution\), Report III \(Part 1B\), Geneva, 2009](#). (Centre of Labour and Social Security Training and Research (ÇASGEM)).
- ILO General Survey Working together to promote a safe and healthy working environment. ILO, General Survey concerning the Occupational Safety and Health Convention (No. 187), and Recommendation (No. 197), 2006; Safety and Health in Construction Convention, 1988 (No. 167), and Recommendation (No. 175), 1988; Safety and Health in Mines Convention (No. 176), and Recommendation (No. 183), 1995; Safety and Health in Agriculture Convention (No. 184), and Recommendation (No. 192), 2001, Report of the Committee on the Application of Conventions and Recommendations (articles 19, 22 and 35 of the Constitution), Report III (Part 1B), Geneva 2017. http://www.ilo.org/ilc/ILCSessions/106/reports/reports-to-the-conference/WCMS_543647/lang--en/index.htm
- For further information see the ILO webpage [Occupational safety and health in construction](#).

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**For information on the ratification of ILO Conventions
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