

Pursuant to Article 13, paragraphs 2 and 3 of the Law on Safety and Health at Work ("Official Journal of Montenegro", No. 34/14), the Ministry of Labor and Social Welfare issued an

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I. GENERAL PROVISIONS

Article 1

This Ordinance lays down minimum safety and health requirements for the use of work equipment by employers and workers at work.

Article 2

The use of work equipment involves all activities related to starting or stopping of work equipment, i.e. its handling, transport, repair, modification whose use, maintenance, servicing and specific cleaning is not altered.

Article 3

For the purposes of this Ordinance, the following terms shall have the following meanings:

- **danger zone**: any zone within or around work equipment in which an exposed worker is subject to a risk to his/her health or safety;
- **operator**: the worker or workers given the task of using work equipment;
- **dangerous movement**: the movement of work equipment or its part, due to which a zone of work equipment can be dangerous;
- **guard**: attached or movable part of work equipment that physically prevents the entry of the worker or his/her body parts in a danger zone of work equipment (case, fence, barrier, doors, lid, armour, etc.), i.e. physically prevents skidding object or substances out of work equipment (fracture, discarding, emission, spraying, etc.);
- **protection device**: an integral part of work equipment which eliminates or reduces the risk by itself or when associated with the guard (device for closing, starting or stopping, secure controlling, limiting or preventing the dangerous action of work equipment or the worker, preventing excessive increase in physical and other sizes etc.).

II. GENERAL OBLIGATIONS OF THE EMPLOYER AND THE OPERATOR

1. The obligations of the employer

Article 4

The employer shall take the measures necessary to ensure that the work equipment made available to workers in the undertaking or establishment is suitable for the work to be carried out or properly adapted for that purpose and may be used by workers without impairment to their safety or health (worker's safety).

In selecting the work equipment which he proposes to use, the employer shall pay attention to the specific working conditions (ergonomic principles) and characteristics and to the hazards

which exist in the undertaking or establishment, in particular at the workplace, for the safety and health of the workers, and any additional hazards posed by the use of the work equipment in question.

If the employer draws up parts of work equipment into the functional unit or work equipment is reconstructed so that its characteristics and functionality are changed, it is considered that he/she is work equipment manufacturer and is subjected to regulations applicable to manufacturers of work equipment.

Article 5

The employer shall take organizational and technical measures to prevent or limit the foreseeable hazards or damages which may arise when using work equipment and to take measures for its safe use.

Article 6

Work equipment can be used only if it has a prominent manufacturer's label in a visible place, in accordance with the regulations governing general product safety.

Article 7

The employer shall take technical safety measures (guards, protection devices etc.) to prevent the entry of the worker into the danger zone of work equipment, if the danger zone is not provided with structural solutions.

Article 8

If the operator shall approach to the danger zone (with his/her hand or body part) in order to hold, insert or remove the sample from the danger zone, then the employer shall ensure extra hand tools or mechanical devices for receiving, inlaying, turning, extracting, inserting, taking samples etc.

Article 9

The employer shall supply, issue on the use and provide means and equipment for personal safety at work to the operator of work equipment: for processing of infectious and squeamish substances of animal origin; which creates noise and vibration; with dangerous radiation; with electric drive and for processing, treatment or other processes with hazardous substances.

The employer shall take into consideration the present dangers and hazards at workplace when choosing work equipment, i.e. other hazards and safety risks which may arise from the use of that work equipment.

Where it is not possible in this way fully to ensure that work equipment can be used by workers without risk to their safety or health, the employer shall take appropriate measures to minimize the risks.

The employer shall ensure that work equipment is maintained in accordance with manufacturer's instructions.

Article 10

The employer shall ensure that work equipment can only be used by the operator, and that repairs, modifications, maintenance and servicing is performed only by the worker who is specially designated and trained.

Article 11

Prior to work commencement and after any changes that could affect the safe use of work equipment, the employer shall take the necessary measures to ensure that workers have at their disposal adequate information and, where appropriate, written instructions on the work equipment used at work. The information and the written instructions shall contain at least adequate safety and health information concerning:

- the conditions of use of work equipment;
- foreseeable abnormal situations; and
- the conclusions to be drawn from experience, where appropriate, in using work equipment.

Workers shall be made aware of dangers relevant to them, work equipment present in the work area or site, and any changes affecting them, inasmuch as they affect work equipment situated in their immediate work area or site, even if they do not use such equipment directly.

2. The obligations of the operator

Article 12

In accordance with the instructions the operator received from the employer, i.e. the manufacturer, he/she shall:

- properly use and maintain work equipment;
 - require the repair of damaged or replacement of used work equipment, if it poses a threat to his/her safety, as well as other exposed worker who may come into the danger zone of work equipment;
 - require adequate means and equipment for personal protection at work, if the proper use of work equipment may cause danger for occurrence of injuries or health hazards.
- Exposed worker is every worker who is fully or partially located in the danger zone.

III. EMPLOYER'S AND WORKER'S SPECIFIC OBLIGATIONS

Article 13

The employer shall ensure that work equipment control devices which affect safety must be clearly visible and identifiable and appropriately marked where necessary. Except where necessary for certain control devices, control devices must be located outside danger zones and in such a way that their operation cannot pose any additional hazard. They must not give rise to any hazard as a result of any unintentional operation.

If necessary, from the main control position, the operator must be able to ensure that no person is present in the danger zones. If this is impossible, a safe system such as an audible and/or visible warning signal must be given automatically whenever the machinery is about to start. An exposed worker must have the time and the means quickly to avoid hazards caused by the starting or stopping of the work equipment.

Control systems must be safe and must be chosen making due allowance for the failures, faults and constraints to be expected in the planned circumstances of use.

Article 14

It must be possible to start work equipment only by deliberate action on a control provided for the purpose, without any hazards to the exposed worker. The same shall apply:

- to restart it after a stoppage for whatever reason;
- for the control of a significant change in the operating conditions (e.g. speed, pressure, etc.), unless such a restart or change does not subject exposed workers to any hazards.

This requirement referred to in paragraph 1 of this Article does not apply to restarting or a change in operating conditions as a result of the normal operating cycle of an automatic device.

Article 15

All work equipment must be fitted with a control to stop it completely and safely. Each work station must be fitted with a control to stop some or all of the work equipment, depending on the type of hazard or possible injuries of the worker, so that the equipment is in a safe state. The equipment's stop control must have priority over the start controls. When the work equipment or the dangerous parts of it have stopped, the energy supply of the actuators concerned must be switched off.

Article 16

Where appropriate, and depending on the hazards the equipment presents and its normal stopping time, work equipment must be fitted with an emergency stop device.

Article 17

Work equipment presenting risk to the worker due to falling objects or projections must be fitted with appropriate safety devices corresponding to the risk and provided by the employer.

Work equipment presenting hazards to the worker due to emissions of gas, vapour, liquid or dust must be fitted with appropriate containment and/or extraction devices near the sources of the hazard.

Article 18

Work equipment and parts of such equipment must, where necessary for the safety and health of workers, be stabilized by clamping or some other means.

Article 19

Where there is a risk of rupture or disintegration of parts of the work equipment, likely to pose significant danger to the safety and health of workers, appropriate protection measures must be taken.

Article 20

Where there is a risk of mechanical contact with moving parts of work equipment which could lead to accidents, those parts must be provided with guards or devices by the employer to prevent access to danger zones or to halt movements of dangerous parts before the danger zones are reached.

The guards and protection devices must:

- be of robust construction;
- not give rise to any additional hazard;
- not be easily removed or rendered inoperative;
- be situated at a sufficient distance from the danger zone in order to prevent the entry of worker's body parts;
- not restrict more than necessary the view of the operating cycle of the equipment; and
- allow operations necessary in order to fit or replace parts and for maintenance work, restricting access only to the area where the work is to be carried out and, if possible, without removal of the guard or protection device.

Article 21

Areas and points for working on, or maintenance of, work equipment must be suitably lit in line with the operation to be carried out.

Article 22

Work equipment parts at high or very low temperature must, where appropriate, be protected to avoid the risk of workers coming into contact or coming too close.

Article 23

Warning devices on work equipment must be unambiguous and easily perceived and understood.

Article 24

It must be possible to carry out maintenance operations when the equipment is shut down. If this is not possible, it must be possible to take appropriate protection measures for the carrying-out of such operations or for such operations to be carried out outside the danger zones.

Article 25

The employer shall ensure that all work equipment must be fitted with clearly identifiable means to isolate it from all its energy sources. Reconnection must be presumed to pose no risk to the workers concerned.

Article 26

The employer shall ensure that work equipment must bear the warnings and markings essential to ensure the safety of workers.

Article 27

Workers must have safe means of access to, and be able to remain safely in, all the areas necessary for production, adjustment and maintenance operations.

Article 28

All work equipment must be appropriate for protecting workers against the risk of the work equipment catching fire or overheating, or of discharges of gas, dust, liquid, vapour or other substances produced, used or stored in the work equipment.

Article 29

All work equipment must be appropriate for preventing the risk of explosion of the work equipment or of substances produced, used or stored in the work equipment. Notwithstanding paragraph 1 of this Article, if the risk of explosion of substances in work equipment (reactor, gas stations, silos, etc.) cannot be eliminated, the employer shall ensure that the necessary measures are taken without jeopardizing the worker due to explosions.

Article 30

The employer shall ensure that all work equipment must be appropriate for protecting exposed workers against the risk of direct or indirect contact with electricity.

Article 31

The employer shall provide that work equipment must be installed, located and used in such a way as to reduce risks to users of the work equipment and for other workers, for example by ensuring that there is sufficient space between the moving parts of work equipment and fixed or moving parts in its environment and that all forms of energy and substances used or produced can be supplied or removed in a safe manner.

Article 32

The employer shall ensure that work equipment is assembled and disassembled in accordance with the manufacturer's instructions.

Article 33

Work equipment which may be exposed to the danger of lightning (thunderbolt), shall be equipped with appropriate devices or means for eliminating the harmful effects on work equipment and exposed worker (protection from bias, etc.).

Article 34

Prior to commencement of work, the operator shall visually and by activating specific control devices, check the validity of work equipment operations, as well as the functionality and accuracy of guards and protective devices.

Article 35

Operator of work equipment causing hazardous movement shall wear equipment for personal protection at workplace which is body fitted, without any loose, prominent or additional parts. In the vicinity of work equipment moving parts, the workers with long hair are obliged to cover hair with a scarf or a hat, so as to prevent direct contact of hair with rotating parts of work equipment.

Article 36

The operator has to perform work in a safe manner so due to dangerous movements or other dangerous activities do not endanger himself/herself and other workers.

If the operator notices irregularities on work equipment, work equipment should be immediately stopped and irregularities reported to the employer.

Article 37

The operator can put work equipment into operation when all provided guards and protection devices are in their protective position.

The operator must not remove the guards or protection devices, i.e. to cause that protective performance of the afore-mentioned shall be without their regular functions.

Article 38

The operator who works with hazardous substances on work equipment, should be familiar with the characteristics of these substances and their safe handling.

Article 39

If work equipment is simultaneously used by two or more operators, the employer shall appoint one of them for coordinating the work, unless the work is coordinated and supervised by their immediate superior.

Article 40

The employer shall ensure that work equipment is tested and examined within the deadlines specified by the manufacturer.

If the manufacturer has not set deadlines for inspection and testing of work equipment, the employer shall ensure for inspections and tests within the prescribed deadlines.

Article 41

If an integral part of work equipment is the device for lifting loads, the employer shall ensure that the operator is trained for safe operation, including the control of the device for lifting loads.

IV. ADDITIONAL OBLIGATIONS WHEN USING WORK EQUIPMENT

1. Setting up of work equipment

Article 42

The employer shall ensure that work equipment in the workspace is set so that its movement, i.e.

the movement of its parts does not create danger zones, and if that is not possible, hazards to the worker should be eliminated with suitable protection devices.

If setting up of protection devices referred to in paragraph 1 of this Article is not possible, the worker's protection should be implemented by placing appropriate signs for the protection and health at work (worker movement prohibition in the danger zone).

Article 43

Within setting up of work equipment, the employer shall provide free areas for work equipment handling, as well as areas and access roads for delivery and storage of the material. For cleaning, lubricating and maintenance of work equipment, the employer shall ensure free passages and access roads to work equipment with those sides by which these activities should be carried out, as well as sufficient brightness of workspace.

The width of access road to work equipment and the place from which an operator carries out activities referred to in paragraph 2 of this Article shall be in accordance with the needs and body position of the worker in performing those tasks.

Article 44

The employer shall ensure that work equipment is set in a way that operators are not exposed to mechanical hazards of injuries (falling or flying parts) and the risk of damage to health (toxic and aggressive substances, radiation, glare), i.e. other possible hazards, whereas the manufacturer's instructions of work equipment should be respected.

Article 45

The employer shall ensure that fixed work equipment is set and, if necessary, attached to a surface or other solid supports (console, frame, table, etc.), so that during use cannot be moved from its location.

Article 46

The employer shall ensure that work equipment which during the work produces stronger impacts, i.e. vibrations, is not set up at higher levels of the building or on elevated supports, if damage to the building structure or supports can be caused due to impacts and vibrations.

Article 47

If during the use of work equipment, impacts and vibrations are expected that can adversely affect the health of the worker, the employer shall take the appropriate protection measures to prevent the transmission of impacts and vibration on the foundation (elastic mats, floating floors, etc.).

2. Obligations related to the driving energy of work equipment

Article 48

When using work equipment which uses combustion engine (with liquid or gaseous fuels), the employer shall ensure:

- setting up of fixed work equipment in a separate workspace;
- special fixing method, if during the use of work equipment vibrations transmitted to the building where workers work may occur;
- taking out of exhaust gases from the workspace, i.e. environment, as well as ventilation;
- bringing the driving energy from the appropriate tank through impermeable and safely installed pipeline, associated fittings and other integral parts of installation.

Article 49

If there is a possibility that in the pipes, connection pipelines and joints hydraulic, steam or pneumatic work equipment may come to an increase in pressure above the limit, the employer shall provide protection devices to reduce pressure on the permissible level.

Article 50

When using work equipment which uses gaseous, liquid or solid fuels, the employer shall ensure the stability and proper functioning of protection devices to prevent the fuel discharge and the appearance of fire explosive mixtures or mixtures dangerous for the protection of the worker.

Article 51

When using work equipment whose integral part is the pressure container, the employer shall provide protection device to prevent excessive pressure (protective valves, etc.).

Article 52

If due to work equipment failure, i.e. work interruption due to power blackout or return of the power supply, there may come to a hazardous activity of residual or recurrent energy on work equipment or in its immediate vicinity, the employer shall ensure that visible warning signs are set on work equipment or in its immediate vicinity.

3. Controlling

Article 53

If work equipment has several driving mechanisms for different working operations, i.e. movements, which are not allowed to work simultaneously due to the protection of the worker and of the manufacturer's instructions, the employer shall ensure that protection device is set on work equipment that will prevent the simultaneous activation of these mechanisms, i.e. simultaneous performance of different operations.

Article 54

Protection devices for energy supply break are activated:

- before starting of cleaning of work equipment;
- before starting work on the maintenance and repair of work equipment;
- where it is necessary to turn off work equipment;
- after finishing work.

Article 55

In the vicinity of the device for work equipment controlling, there must not be any obstacles that prevented the operator a full action of control device.

4. Guards and protection devices

Article 56

If it is necessary for technological reasons that guard or protection device to be temporarily removed or opened for inspection, adjustment, replacement of tools, repairs, cleaning, etc., the employer shall ensure a device for separating work equipment from the energy source and lock the operation until the guard or protection device do not return to their protective position. Removing the guard or protection device in order to control the accuracy of work equipment is in conformity with paragraph 1 of this Article, if the protection of the worker is adequately carried out.

Article 57

The employer should not allow the use of work equipment without provided guards or protection devices.

The operator who uses work equipment should not turn off provided guards or protection devices, i.e. to reduce their function.

The employer shall ensure that during the use, guards and protection devices on work equipment are not turned off.

Article 58

The employer shall ensure that guards and protection devices are set in a way that do not interfere with normal use of work equipment.

If the working procedure requires supervision or control of work equipment during the work, the employer shall ensure the opportunity of observing the process without danger for the protection of the worker (the opening, display etc.).

Article 59

Steep, leaning and horizontal belt-drives and other transmissions, regardless of their width and speed should be bracketed or enclosed by protection device of 2 m height from the floor on which the worker is located.

Belt and other transmissions, which are at a height greater than 2 m above the floor, should be bracketed or enclosed by protection device at least on the bottom.

If the height of protection cannot be set in accordance with paragraph 1 of this Article, out of objective or technical reasons next to the belt or other transmission instrument, the employer shall ensure that in this case the protection device is set at a certain distance from the belt or other transmission instrument and lower than 2 m above the floor, provided that the worker while standing on the floor with his/her outstretched arm does not reach into the danger zone of transmission in drive.

Article 60

To switch belt from one to another pulley, during transmission drive, the employer shall ensure the use of appropriate mechanical device for switching.

Article 61

Moving parts of transmitting mechanism of power (shafts, pulleys, belts, etc.), which are above the floor of the room, the gallery or the podium, in places of the worker's passage, should be bridged and enclosed by full or mesh protections.

Article 62

If protection device with two-handed control is used in order to protect the worker on work equipment, in this case, the employer shall ensure two separate elements for controlling work equipment (keys, knobs, etc.), on which the operator needs to act simultaneously with both hands as long as the dangerous operation lasts.

If the operator at work is using the protection device with two-handed control in accordance with paragraph 1 of this Article, simultaneous controlling of work equipment using another device to control should be disabled (foot pedal, etc.).

Article 63

Work equipment should have a remote control device in the case of the instrument:

- with dangerous heat radiation;
- with dangerous radiation (x-ray machines, indoor and outdoor sources of ionizing radiation, optical radiation, etc.);
- which makes noise above the permitted level;
- in which substances with strong toxic action are developed and/or released (gases, vapors, aerosols, etc.);
- in respect of which by remote controlling can be achieved better visibility of work and thus greater protection of the worker.

Notwithstanding paragraph 1 of this Article, the employer does not need to ensure a remote control device, if the worker during the working process only temporarily comes in the vicinity of such work equipment, during which he/she uses appropriate instruments and equipment for personal safety at work.

5. Control instruments and signal devices

Article 64

The employer shall ensure that the control and measuring instruments (thermometers, manometers, pyrometers, speedometer, anemometers, liquid level indicators and other control instruments) and signal devices (signal light, audible signal devices for alarm and other signal beacons), are set up in cases where by using them proper supervision over the work of work equipment is ensured, i.e. the protection of the exposed worker during the use of work equipment.

The operator shall visually check the regularity of the control instruments and signal devices on work equipment before and during the work.

The employer shall ensure that the control instruments are checked and tested within the prescribed deadlines.

Article 65

The employer shall ensure that the control instruments and optical signal devices on work equipment or in its vicinity are set in a visible place, so that the measured values and signals can be easily scanned, i.e. observed from the operator's workplace.

Article 66

In the case of controlling work equipment of large dimensions, when the mutual understanding of two or more operators is hindered and when the exposed worker may be endangered, work equipment should be provided with audible or optical signal devices or other devices to alert the worker to danger, i.e. for mutual agreement.

The employer shall ensure that audible signals or other warning instruments referred to in paragraph 1 of this Article, are determined prior to start using work equipment and that the operators have insight into their function.

If giving an audible signal or other ways of warning to the danger is associated with launching of work equipment, the employer shall ensure that the time between the warning signal and launching of work equipment is set in a way that the worker has enough time to leave the danger zone or shelter in a safe place, i.e. that he/she can be prepared for the working operation that will carry out.

6. Work equipment in respect of which static electricity is generated

Article 67

The employer shall take measures to protect against the effects of static electricity on work equipment in respect of which work the static electricity is generated, which may jeopardize the protection of the worker, i.e. cause a fire or explosion.

On the occasion of selecting measures to protect the worker from static electricity (earthing, maintaining of certain humidity in the air, antistatic preparations, separation of static electricity by influenza, increasing of conductivity of poorly conductive materials and air ionization, or a combination of these measures), the employer shall take into account the level of risk, type of technological process and work equipment, as well as microclimate conditions in the workspace.

7. Work equipment in respect of which the dust is separated

Article 68

The employer shall ensure that within work equipment for the work in closed and open spaces, during which use the dust is separated into the working environment above the limit value, device for dust collection is used at source and its removal out of the workplace. If the device referred to in paragraph 1 of this Article does not remove dust effectively, the employer shall ensure that work equipment is hermetically sealed or placed in a special area, as well as to be remote controlled.

The employer shall ensure that the devices for dust removal are set in a way that work equipment can be safely used, and that devices for dust removal are isolated only for cleaning and repairs.

8. Work equipment with hazardous substances

Article 69

When using work equipment with hazardous substances, in addition to protection measures prescribed in this Ordinance, measures prescribed by the Act governing the labeling, handling and storage of hazardous substances should be taken.

Article 70

The employer shall ensure that work equipment which releases hazardous substances (gases, vapors, dust) into the working environment, should be set up in such a way that the harmful effects of these substances on the worker are within permitted limits during its use.

Article 71

Work equipment which is used for the production, i.e. processing of hazardous substances should be set up in separate rooms, i.e. compartments.

By technological procedure which is carried out with work equipment referred to in paragraph 1 of this Article, should be controlled from a separate area in which clean air is supplied in the

amount that provides pre-pressure in relation to the area with work equipment, in order to prevent the entry of hazardous substances into the controlling area.

During technological process with work equipment, if it is necessary to take samples of hazardous substances referred to in paragraph 1 of this Article which are under pressure, the employer shall ensure that for taking samples special protection device is provided that prevents the release of hazardous substances from work equipment at the time of sampling.

Article 72

The employer shall ensure that the technological procedures, in respect of which hazardous substances are used or separated, are carried out in hermetically sealed containers or spaces so that it prevents the action of these substances on the operator.

Work equipment which should be opened for charging and removing substances, during which there is a possibility that toxic substances can come out, must be equipped with protection and suction devices to prevent the leakage of these substances from work equipment into the workspace.

The employer shall ensure that work equipment in which hazardous substances are separated, which for technological reasons cannot be sealed, has a suitable device for removal of hazardous substances or their neutralization.

The employer shall determine and ensure hygienic conditions for the operator who uses work equipment for the processing, treatment or other processes with hazardous substances.

Article 73

Work equipment with electrical drive and installations on which is worked with explosive and highly flammable substances, or such substances that may be isolated in the form of gases, vapors, dust, etc., electrical installation should be carried out in anti-explosion protection.

Work equipment with explosive and highly flammable substances shall be constructed, installed and maintained so that:

- parts in the movement should be of materials that by touching or friction do not create a spark, static electricity or dangerous warming;
- it is lubricated by agents and in a way that is not the source of fire or explosion;
- the places of treatment or processing, as appropriate, are sealed and impermeable, to prevent any evaporation or leakage of the contents;
- the material is resistant to corrosion, if explosive and highly flammable substances are as well corrosive;
- electrical cables are not overloaded and that the electrical installation is expertly maintained;
- in the room or in the vicinity of work equipment, agents which are the sources of fire and sparks or burning objects are not used.

The employer shall issue on the use and provide assets and equipment for personal protection at work that correspond to work conditions and do not cause sparks to the operator working with work equipment with explosive and flammable substances. Devices for work equipment controlling referred to in paragraph 1 of this Article, if necessary, are set up in a special room separated from the room with work equipment and with overpressure protection as a protection measure of separating these devices from the space with possible explosive mixtures.

Article 74

The employer shall ensure that work equipment, whose integral parts are the gas burners, is used and maintained in accordance with manufacturer's instructions. Work on maintaining of work equipment with gas burners can be carried out only by qualified workers or authorized services.

Article 75

The employer shall ensure that inspections and testing of work equipment, whose corrosive substances (corrosive and aggressive) are handled, processed or used for other purposes, are carried out in accordance with manufacturer's instructions, i.e. in accordance with the regulations governing inspections and testing of work equipment.

Article 76

The employer shall ensure that work equipment for processing of infectious and squeamish substances of animal origin is set so that it can easily be cleaned, washed and disinfected, and its integral parts must not absorb liquids or odors.

Article 77

If hazardous substances must not be released directly into the environment, the employer shall ensure a special device for absorbing or neutralizing hazardous substances, for their deposition or incineration, i.e. appropriate preservation.

Article 78

The employer shall ensure that the cleaning and washing of portable or mobile containers in which hazardous substances are held, is carried out in particular, specially equipped areas. Cleaning and washing of containers holding hazardous substances should preferably be mechanized so as to exclude the need for entering and keeping the worker in them. The employer shall ensure that the built-in containers (underground and overhead) for the storage of hazardous substances, which should be periodically cleaned, washed, degreased, etc., should be provided with the connection for vapour, water, or any other means by which these activities are carried out, as well as to have drain system for the unclean water or other cleaning agents in the space provided, during which a sufficient amount of vapour, water or other cleaning agents should be ensured.

If the work in the containers referred to in paragraph 2 of this Article is not possible to be carried out without entering the worker and retaining in them, the employer shall take appropriate safety measures during the performance of those tasks (inertization of containers, measuring the concentration of hazardous gases and vapors in the container, the use of masks with the supply of fresh air or insulating apparatus, the use of certain protective clothing and footwear, protective belt with a rope, coordinated work of two or more workers).

Article 79

When using work equipment, in respect of which greater amounts of hazardous waste substances in gaseous, liquid or solid state are separated, the employer shall take measures for the protection of the working environment from pollution.

Protecting the worker and the working environment of the emitted gases, vapors and dust from chimneys and other discharges from work equipment, the employer shall implement technical solutions (incineration, absorption, adsorption, removal of dust and vapors from waste gases, etc.).

9. Work equipment with high or low temperatures

Article 80

Charging and discharging of work equipment under high temperature, as well as opening and closing of doors and lids should be mechanized.

During charging, discharging, and in other similar procedures on work equipment with electrical resistors in open canals (electric arc furnace), the employer shall ensure provided protection measures for the worker of electric shock (disconnection device, blockage), if the work is carried out with metal hand tools.

Article 81

The employer shall ensure that work equipment with high temperatures (furnaces for melting, heating, annealing, etc.) has doors and lids with appropriate thermal insulation, except when they are cooled by water or other agents.

Article 82

The interior area of the drying room, during drying of raw materials and products, should be closed towards the workspace.

Before opening the drying room for the entry of the worker for emptying and refilling, it should be disposed of residual gases, and the interior of the drying room should be cooled to a temperature up to 313°K (40°C), unless there is a possibility for heat adjustment of the worker before entering the drying room.

Hot gases from the drying room cannot be discharged into the workspace.

Doors of the drying room should be safely and easily opened, even from the inside, and in the case when locked.

Article 83

In areas with cooling work equipment with low temperatures below 273°K (0°C), cold-storages, freezers, refrigerated warehouses and other areas, the employer shall ensure that operating procedures are mechanized, automated or remotely-controlled.

If the requirements referred to in paragraph 1 of this Article cannot be ensured, the employer needs to provide appropriate means and equipment for personal safety at work for the worker, with the accent of taking care of the safety measures for the work in cold environments. The front door of the room or chamber with low temperatures should be opened in an easy way, without a key and from the inside.

The employer shall ensure that the instructions for the safe use of cooling work equipment are displayed in a visible place, in accordance with the regulations governing the use of refrigerating equipment.

In front of the entrance of the chamber with low temperatures, the employer shall ensure the worker with temperature adjustment, taking into account the criteria for the work in cold environment.

10. Work equipment which creates noise and vibration

Article 84

If the noise, i.e. vibration cannot be reduced to the permissible level on work equipment by technical solutions, the employer shall ensure the application of specific measures to protect the worker such as sound insulation of work equipment or its part, coating the work equipment or its environment where work equipment is set up with the material that absorbs the sound, separating work equipment in a special area, separating the operator in the cab with remote control, construction of a special building, construction of special foundations, reduction of worker's exposure to noise and other measures.

11. Work equipment with hazardous radiation

Article 85

The employer shall ensure that for setting up of work equipment with hazardous radiation indoors and outdoors, as well as during its use, checking, testing, keeping records and when appointing the worker to work with such a device, special regulations governing the protection from ionizing radiation and radiation safety, as well as the protection from non-ionizing radiation should be obeyed.

12. Manual work equipment for the work on the electric drive

Article 86

When using manual work equipment for the work on electric drive in damp areas, in an area with a wet floor or with metal floor, as well as in the open air during rain, fog or snow, i.e. in similar conditions when the electrical conductivity increases, i.e. the electrical resistance of the body reduces, the employer shall take appropriate measures to protect the worker from electric shock (protection low voltage, transformer for galvanic isolation, etc.).

13. Troubleshooting, maintenance and transportation of work equipment

Article 87

If the responsible person designated by the employer determines that there is a danger to the worker while eliminating interferences on work equipment, work process on that work equipment should be stopped.

If the work referred to in paragraph 1 of this Article cannot be carried out when work equipment standstill due to technological or other reasons, for the performance of the work guards, protection devices and protection measures should be used.

Article 88

Before cleaning, repairs and prolonged interruptions regarding the maintenance of work equipment on electric drive, the employer shall ensure to shut down the electricity supply at the spot of connection to the distribution network (fuse, switch, power plug), in order to perform work in voltage-free condition.

A device for separating from the power supply can be equipped with a device that can be used to block when it is turned off (e.g. by a padlock or otherwise) or to be closed in the case or other enclosed space with a key or tool, or by placing written warning "Do not turn on - the repair is carried out".

The warning referred to in paragraph 2 of this Article may be removed and the device for separating from the power supply can be turned on again, only by the operator who repaired work equipment after determining that the repair is carried out, that the worker is not in the danger zone and that guards or protection devices are reinstalled in their protective position. Works related to repairs on the part of work equipment in the vicinity of voltage and under voltage of electricity can be carried out only in accordance with the measures when using electricity.

Article 89

During the repairs of work equipment with connectors to other types of energy (vapour, water and other hydraulic energy-generating products, air or gas), first of all the power supply should be shut down, substances from the pipeline emptied and, if necessary, at the spot where the power supply is shut down, the written warning should be set up »Do not open - the repair is carried out«.

If the repair is also carried out on the pipes of the pipeline for energy-generating products supply referred to in paragraph 1 of this Article, the pipes should be closed in the appropriate places (armoured) or in other way to ensure the suspension of energy-generating products.

If the energy-generating products are hazardous substances (gases, etc.), the pipeline with all connectors should be checked at least once a year for leaks and, if necessary, replace the seals or remove other shortcomings, as well as to indicate which hazardous substance is in question and the way of its movement.

Article 90

If the repair, assembly and dismantling of work equipment is carried out in the workspace in which other work equipment is simultaneously used, the employer shall ensure that on this work equipment and on these workplaces appropriate protection measures are taken.

For major repairs of work equipment, including assembly and dismantling, the employer shall ensure that the surfaces from which the repair is carried out, separated or enclosed from other surfaces and that warning signs are placed, especially if the repairs are carried out in the vicinity of the worker's passage.

The employer shall ensure that the transport of the necessary parts of work equipment and materials during repairs is carried out through separate entrances and passages or to be organized in another safe manner so as not to endanger the protection of the worker.

Article 91

Prior to the start of work equipment repairment which uses highly-flammable or explosive substances or they are held in it, the employer shall ensure that the protection measures are taken, especially if the repair is carried out by welding or other similar procedures.

The protection measures referred to in paragraph 1 of this Article include:

- emptying and cleaning of containers holding substances, as well as checking the purity of work equipment, especially in terms of the gases' presence;
- filling of work equipment, i.e. containers with water, vapour with low pressure, inert gas or sinking the container if necessary;
- direct controlling and monitoring of the worker's condition, as well as coordinating the work;
- the presence of a qualified worker (fireman, etc.) regarding protection against possible hazards and providing adequate resources and fire-fighting equipment;
- other protection measures.

Article 92

Repair, hand-lubricating and cleaning of work equipment during the work process is not allowed, unless work equipment is specially adapted for such tasks by the manufacturer and that it does not jeopardize the protection of the worker.

Article 93

The employer shall ensure that after the repair joint places with the belt, tape, ropes and chains would not be the cause of decreasing the strength and functionality of the transmission assets. If the belt, tape, rope or chain, is the integral part of the transmission drive, the employer shall ensure that the repaired joint place does not create any additional difficulties or excessive tension of these parts during the power transfer of power and that these elements do not fall out during the operation.

Article 94

Performing the repair, assembly and dismantling of work equipment, at a height greater than 2 m above the floor, the employer shall ensure adequate working platforms, i.e. scaffoldings with appropriate ladders, stairs or other safe means of access for the worker. If during the works referred to in paragraph 1 of this Article, there is a risk of falling from a height and injuries of the worker, the employer shall ensure that appropriate safety measures against falls from a height should be taken.

Article 95

For repairs, assembly and dismantling of work equipment, during which the parts of work equipment are lifted, descended or transferred, or the weight of these parts is greater than allowed for manual lifting of load, the employer shall ensure manual or mechanized equipment for lifting loads (pulley, winches, cranes etc.) for the worker.

Article 96

Maintenance, repairs and setting up of work equipment can only be performed by the worker designated by the employer, who is trained for safe work and who needs to comply with the manufacturer's instructions for safe operation.

The worker who performs activities referred to in paragraph 1 of this Article cannot arbitrarily change parts of work equipment, so to change their characteristics and function.

Article 97

Before the start of transmission, i.e. transport of work equipment, it is necessary to take protective measures, so that:

- all moving parts which during the transport could move and threaten the worker, should be secured from sliding, i. e. to be fixed;
- electric and other assets should be protected from damage, getting stuck, vibrations, humidity, stronger heat sources and low temperatures;
- the weight and dimensions of work equipment are taken into account, and to take measures for removing obstacles to the planned transportation route;
- in case of danger to start or rollover, work equipment should be attached to the transportation vehicle.

All power lines should be previously shut down in case of minor starting or rollover of work equipment.

The worker who performs transportation of work equipment, should comply with the prescribed instructions for this type of work, schemes and rules of work equipment manufacturer, i.e. the employer's instructions.

14. Movable work equipment, whether or not self-propelled

Article 98

The employer shall ensure that movable work equipment used to transport workers is equipped in such a way that while driving prevent or minimize the risk of injury to the workers, taking into account the possible risk of contact with the wheels or tracks and entrapment of their body parts.

Article 99

If an unintentional blockade of the drive unit between the moving parts of the drive unit and its accessories or anything towed might create a specific risk, the employer shall ensure the device to prevent blockages of the drive unit on such work equipment. If it is not possible to avoid the blockade referred to in paragraph 1 of this Article, it is necessary to ensure other protection measures to eliminate the risk to the worker.

Article 100

Where drive shafts for the transmission of energy between movable parts of work equipment can become soiled or damaged by trailing on the ground, facilities must be available for fixing them.

Article 101

The employer shall ensure that movable work equipment with ride-on workers, must be designed to restrict, under actual conditions of use, the risk arising from work equipment roll-over:

- by a protection structure designed to ensure that the equipment does not tilt more than a quarter turn, or
- by a structure giving sufficient clearance around the ride-on workers if the tilting movement can continue beyond a quarter turn, or
- by some other device of equivalent effect.

Protection structures referred to in paragraph 1 of this Article may be an integral part of work equipment.

Protection structures referred to in paragraph 1 of this Article are not required when the work equipment is stabilized during operation or where the design makes roll-over impossible.

Where there is a risk of a ride-on worker being crushed between parts of the work equipment and the ground, should the equipment roll over, a restraining system for the ride-on workers must be installed.

Article 102

The employer should ensure that fork-lift trucks carrying one or more workers must be adapted or equipped to limit the risk of the fork-lift truck overturning, e.g.:

- by the installation of an enclosure for the driver, or
- by a structure preventing the fork-lift truck from overturning, or
- by a structure ensuring that, if the fork-lift truck overturns, sufficient clearance remains between the ground and certain parts of the fork-lift truck for ride-on workers, or
- by a structure restraining the workers on the driving seat so as to prevent them from being crushed by parts of the fork-lift truck which overturns

The employer shall ensure that the fork-lift truck transports only as many workers as provided for in the manufacturer's instructions for fork-lift trucks.

Article 103

The employer shall ensure that self-propelled work equipment which may, when in motion, engender risks for persons, must fulfill the following conditions:

- the equipment must have facilities for preventing unauthorized start-up;
- it must have appropriate facilities for minimizing the consequences of a collision where there is more than one item of track-mounted work equipment in motion at the same time;
- there must be a device for braking and stopping equipment. Where safety constraints so require, emergency facilities operated by readily accessible controls or automatic systems must be available for braking and stopping equipment in the event of failure of the main facility;
- where the driver's direct field of vision is inadequate to ensure safety, adequate auxiliary devices must be installed to improve visibility;
- work equipment designed for use at night or in dark places must be equipped with lighting appropriate to the work to be carried out and must ensure sufficient safety for workers;

- work equipment which constitutes a fire hazard, either on its own or in respect of whatever it is towing or carrying, and which is liable to endangered workers must be equipped with appropriate fire-fighting appliances where such appliances are not available sufficiently nearby at the place of use;
- remote-controlled work equipment must stop automatically once it leaves the control range;
- remote-controlled work equipment which may in normal conditions engender a crushing or impact hazard must have facilities to guard against this risk, unless other appropriate devices are present to control the impact risk.

15. The use of work equipment, whether or not self-propelled

Article 104

If mobile work equipment is moving around in a work area, appropriate traffic rules must be drawn up and followed (transport routes, the speed).

Article 105

Organizational measures must be taken by the employer to prevent workers on foot coming within the area of operation of self-propelled work equipment. If work can be done properly only if workers on foot are present, appropriate measures must be taken to prevent them from being injured by the equipment.

Article 106

Transport of workers on mechanically driven mobile work equipment is authorized only where safe facilities are provided for that purpose. If work must be carried out during the journey, speeds must be adjusted as necessary.

Article 107

Mobile work equipment with a combustion engine may not be used in working areas unless sufficient quantities of air presenting no health or safety risk to workers can be guaranteed.

16. Work equipment for lifting loads

Article 108

As you use the funds for the work of lifting loads, regardless of whether it is on his permanent or temporary location (mobile, dismantled and re-assembled the means to work), the employer should ensure the strength and stability under all foreseeable conditions, taking into account the characteristics foundations, ground and cargo capacity in the point of setting up or fixing.

Article 109

The employer should ensure that the means to work for lifting visibly marked nominal capacity and, if necessary, load the table, for each position of the funds.

The employer should ensure that the extra parts of the funds for the work of lifting loads placed tags to indicate in an unequivocal and safely use.

On working for the lifting, not intended for or could be used for lifting persons must be appropriately and clearly indicated its purpose.

Article 110

Permanently installed working tool for lifting loads should be set so that by minimizing the risk that the burden:

- Struck the employee;
- Drift dangerously or fall freely;
- Inadvertently released.

Article 111

The employer should use when funds for the lifting or transfer the worker to provide:

- Appropriate devices to prevent the risk of tipping over or falling funding for work;
- Prevent the risk of falls worker from funds for the work;
- Prevent the risk of crushing, entrapment or stroke means employed to work in the event of inadvertent contact with its parts;
- Ensuring the protection and release of the worker, if the accident is trapped in the vehicle for work.

If, because of terrain and height differences when using the means of work, regular safety measures cannot avoid danger to the worker, the employer should ensure that the means of work place protection lifeline with increased safety factor and that the validity of the protective rope regularly controls during daily work.

17. The use of work equipment for lifting loads

Article 112

Work equipment which is mobile or can be dismantled and which is designed for lifting loads must be used in such a way as to ensure the stability of the work equipment during use under all foreseeable conditions, taking into account the nature of the ground where the work equipment is placed.

Article 113

Without prejudice to paragraph 1 of this Article, exceptionally, work equipment which is not specifically designed for the purpose of lifting persons may be used for that purpose, provided appropriate action has been taken by the employer to ensure safety in accordance with national legislation and/or practice providing for appropriate supervision. While workers are on work equipment designed for lifting loads the control position must be manned at all times. Persons being lifted must have reliable means of communication and in the event of danger, there must be reliable means of evacuating them referred to in paragraph 3 of this Article.

Article 114

Measures must be taken by the employer to ensure that workers are not present under suspended loads, unless such presence is required for the effective operation of the work. Loads may not be moved above unprotected workplaces usually occupied by workers. Where that is the case, if work cannot be carried out properly any other way, appropriate procedures must be laid down and applied.

Article 115

Lifting accessories must be selected according to the loads to be handled, gripping points, attachment tackle and atmospheric conditions having regard to the mode and configuration of slinging. Lifting accessory tackle must be clearly marked so that users are aware of its characteristics where such tackle is not dismantled after use.

Article 116

Lifting accessories must be stored in a way that ensures that they will not be damaged or degraded.

18. Work equipment for lifting non-guided loads

Article 117

When two or more items of work equipment used for lifting non-guided loads are installed or erected on a site in such a way that their working radii overlap, appropriate measures must be taken by the employer to avoid collision between loads or the work equipment parts themselves.

Article 118

When using mobile work equipment for lifting non-guided loads, measures must be taken by the employer to prevent the equipment from tilting, overturning or, as the case may be, moving or slipping. Checks must be carried out to ensure that these measures are executed properly.

Article 119

If the operator of work equipment designed for lifting non-guided loads cannot observe the full path of the load either directly or by means of auxiliary equipment providing the necessary information, a competent person must be in communication with the operator to guide him and organizational measures must be taken to prevent collisions of the load which could endanger workers.

Organizational measures must be taken by the employer when lifting non-guided loads to prevent workers or surrounding objects of loads impact, in a way that all activities are properly planned, appropriately supervised and carried out when lifting non-guided loads.

Article 120

Work must be organized in such a way that, when a worker is attaching or detaching a load by hand, it can be done safely, in particular through the worker retaining direct or indirect control of the work equipment.

Article 121

All lifting operations must be properly planned, appropriately supervised and carried out in such a way as to protect the safety of workers.

In particular, if a load has to be lifted simultaneously by two or more items of work equipment designed for lifting non-guided loads, a procedure must be established and applied to ensure good coordination on the part of the operators.

Article 122

If work equipment designed for lifting non-guided loads cannot maintain its hold on the load in the event of a complete or partial power failure, appropriate measures must be taken by the employer to avoid exposing workers to any resultant risks. Suspended loads must not be left unsupervised unless access to the danger zone is prevented and the load has been safely suspended and is safely held.

Article 123

Open-air use of work equipment designed for lifting non-guided loads must be halted when meteorological conditions deteriorate to the point of jeopardizing the safe use of the equipment and exposing workers to risks. Adequate safety measures, in particular measures to avoid work equipment turning over, must be taken to avoid any risks to workers.

19. The use of work equipment provided for temporary work at a height

1) General Provisions

Article 124

If temporary work at a height cannot be carried out safely and under appropriate ergonomic conditions from a suitable surface, the work equipment most suitable to ensure and maintain safe working conditions must be selected by the employer.

Collective protection measures must be given priority over personal protection measures. The dimensions of the work equipment must be appropriate to the nature of the work to be performed and to the foreseeable stresses, and must allow passage without danger.

The most appropriate means of access to temporary workplaces at a height must be selected by the employer according to the frequency of passage, the height to be negotiated and the duration of use. The choice made must permit evacuation in the event of imminent danger. Passage in either direction between a means of access and platforms, decks or gangways must not give rise to any additional risks of falling.

Article 125

Ladders may be used as work stations for work at a height only under circumstances in which the use of other, safer work equipment is not justified because of the low level of risk and by reason of either the short duration of use or existing features on site that the employer cannot alter.

Article 126

Rope access and positioning techniques may be used only under circumstances where the risk assessment indicates that the work can be performed safely and where the use of other, safer work equipment is not justified.

Taking the risk assessment into account and depending in particular on the duration of the job and the ergonomic constraints, provision must be made for a seat with appropriate accessories.

Article 127

Depending on the type of work equipment selected on the basis of the foregoing, the appropriate measures for minimizing the risks to workers inherent in that type of equipment must be determined. The installation of safeguards to prevent falls from a height have to be ensured by the employer. These must be of suitable configuration and sufficient strength to prevent or arrest falls from a height and, as far as possible, to preclude injury to workers.

Collective safeguards to prevent falls may be interrupted only at points of ladder or stairway access.

Article 128

When the performance of a particular task requires the temporary removal of a collective safeguard designed to prevent falls, effective compensatory safety measures must be taken.

The task referred to in paragraph 1 of this Article may not be performed until such measures have been taken. Once the particular task has been finished, either definitively or temporarily, the collective safeguards to prevent falls must be reinstalled.

Article 129

Temporary work at a height may be carried out only when the weather conditions do not jeopardize the safety and health of workers.

2) Requirements regarding the use of ladders

Article 130

Ladders must be so positioned as to ensure their stability during use. Portable ladders must rest on a stable, strong, suitably-sized, immobile footing so that the rungs remain horizontal. Suspended ladders must be attached in a secure manner and, with the exception of rope ladders, in such a way that they cannot be displaced easily and their swinging is prevented.

Article 131

The feet of portable ladders must be prevented from slipping during use by securing the uprights at or near their upper or lower ends, by any anti-slip device or by any other arrangement of equivalent effectiveness. Ladders used for access must be long enough to protrude sufficiently beyond the access platform, unless other measures have been taken to ensure a firm handhold. Interlocking ladders and extension ladders must be used in such a way that the different sections are prevented from moving relative to one another. Portable ladders must be prevented from moving before they are stepped on.

Article 132

Ladders must be used in such a way that a secure handhold and secure support are available to the employee at all times. In particular, if a load has to be carried by hand on a ladder, it must not preclude the maintenance of a safe handhold.

3) Requirements regarding the use of scaffolding

Article 133

When a note of the calculations for the scaffolding selected is not available or the note does not cover the structural arrangements contemplated, strength and stability calculations must be carried out unless the scaffolding is assembled in conformity with a generally recognized standard configuration.

Article 134

Depending on the complexity of the scaffolding chosen, the employer determines a person who should develop a plan for its installation, use and dismantling. The plan may be made in the standard form of the project with additional details regarding needed specific solutions of the scaffolding in question.

Article 135

The bearing components of scaffolding must be prevented from slipping, whether by attachment to the bearing surface, provision of an anti-slip device or any other means of equivalent effectiveness, and the load-bearing surface must have a sufficient capacity. Wheeled scaffolding must be prevented by appropriate safety devices from moving accidentally during work at a height.

Article 136

The dimensions, form and layout of scaffolding decks should be appropriate to the nature of the work to be performed and suitable for the working tools, equipment and materials to be carried, and should permit secure access, passage and work on scaffolding. Scaffolding decks should be assembled in such a way that their components cannot move during normal use. There must be no dangerous gaps between the deck components of scaffolding and the vertical collective safeguards designed to prevent falls.

Article 137

When parts of a scaffolding are not ready for use, for example during assembly, dismantling or alteration, they should be marked with general warning sign for safety and health at work on a visible place and should be suitably delimited by physical means, preventing access of the employee to the danger zone.

Article 138

Assembly, dismantling or alteration of the scaffolding must be performed only under the supervision of a competent person and by employees who have received appropriate and specific training in the operations envisaged, addressing specific risks, and more particularly in:

- understanding of the plan for the assembly, dismantling or alteration of the scaffolding concerned;
- safety measures during assembly, dismantling or alteration of the scaffolding concerned;
- safety measures to prevent the risk of employees or objects falling;
- safety measures in the event of changing weather conditions which could adversely affect the safety of the scaffolding concerned, i.e. of an employee;
- permissible loads;
- any other risks which the abovementioned assembly, dismantling or alteration operations may entail.

The person supervising and the employee who performs work on the assembly, dismantling or alteration of the scaffolding should have available the assembly and dismantling plan referred to in Article 134 of this Ordinance, including all instructions which it should contain.

4) Requirements regarding the use of rope access and positioning techniques

Article 139

The use of rope access and positioning techniques must comply with the following conditions:

- the system should comprise at least two separately anchored ropes, one as a means of access, descent and support (work rope) and the other as backup (security rope);
- the employee must be provided with and use an appropriate harness and must be connected by it to the security rope;
- the work rope must be equipped with safe means of ascent and descent and have a self-locking system to prevent the employee of falling if he loses the control of his movements. The security rope must be equipped with a mobile fall prevention system which follows the movements of the employee;
- the tools and other accessories to be used by the employee must be secured to the worker's harness or seat or by some other appropriate means;
- the work must be properly planned and supervised, so that the employee can be rescued immediately in an emergency;
- the employee concerned must receive adequate training specific to the operations envisaged, in particular for rescue procedures.

In exceptional circumstances where, in view of the assessment of risk, the use of a second rope (security rope) would make the work more dangerous for the employee, the use of a single rope (work rope) may be permitted, provided that appropriate measures have been taken to ensure safety by the employer.

V. FINAL PROVISIONS

Article 140

On the day of the application of this Ordinance, the Ordinance on measures and norms of protection at work on work tools ceased to be applied ("Official Journal of SFRY", No. 18/91).

Article 141

This Ordinance shall enter into force on the eighth day of its publication in the "Official Journal of Montenegro", and it shall apply from the date of accession of Montenegro to the European Union.

* Directive of the European Parliament and the Council 2009/104/EC has been transposed into this Ordinance of 16/09/2009 concerning minimum requirements for the protection of health and safety in the use of work equipment.

No.
Podgorica, ____ May 2015

THE MINISTER,
Zorica Kovacevic