

**GOVERNMENT DECISION nr.1146/30.08.2006**  
**regarding the establishing the minimum safety and health requirements for the use**  
**of work equipment by workers at work**

**CHAPTER I**  
**GENERAL PROVISIONS**

**Art. 1. - (1)** This decision lays down minimum safety and health requirements for the use of work equipment by workers at work, as defined in art.2.

**(2)** The provisions of Laws no 319/2006 concerning work safety and health, are completed with specific provisions of this Decision.

**Art. 2. -** For the purposes of this decision, the following terms shall have the following meanings:

- a) 'work equipment': any machine, apparatus, tool or installation used at work;
- b) 'use of work equipment': any activity involving work equipment such as starting or stopping the equipment, its use, transport, repair, modification, maintenance and servicing, including, in particular, cleaning;
- c) 'danger zone': any zone within and/or around work equipment in which an exposed worker is subject to a risk to his health or safety;
- d) 'exposed worker': any worker wholly or partially in a danger zone;
- e) 'operator': the worker or workers given the task of using work equipment.

**CHAPTER II**  
**EMPLOYERS' OBLIGATIONS**

**Section 1**

**General obligations. Rules concerning work equipment**

**Art. 3. - (1)** The employer shall take the measures necessary to ensure that the work equipment made available to workers in the undertaking and/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.

**(2)** In selecting the work equipment which he proposes to use, the employer shall pay attention to the specific working conditions and characteristics and to the hazards which exist in the undertaking and/or establishment, in particular at the workplace, for the safety and health of the workers, and/or any additional hazards posed by the use of work equipment in question.

**(3)** Where it is not possible fully so 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.

**Art. 4. - (1)** Without prejudice to the provisions of art.3, the employer must obtain and/or use:

(a) work equipment which, if provided to workers in the undertaking and/or establishment after the date of entering in force of this Decision, complies with:

(i) the provisions of any relevant Romanian technical regulations which transpose the applicable community legislation;

(ii) the minimum requirements laid down in the Annex no.1, in so far as they don't apply or apply partially to the Romanian technical regulations that transpose community legislation;

b) work equipment which, if already provided to workers in the undertaking and/or establishment, complies with minimum requirements laid down in the Annex no.1, no later than December 31, 2006;

(2) The employer shall take the measures necessary to ensure that, throughout its working life, work equipment is kept, by means of adequate maintenance, at a level such that it complies with the provisions of paragraph 1 (a) or (b) as applicable.

(3) The Ministry of Labour, Social Solidarity and Family establishes, after consulting the social partners and taking into account the national laws and/or practices, the methods that will allow accomplishing a level of safety corresponding to the objectives stipulated by the provisions of Annex no.2.

## **Section 2 Inspection of work equipment**

**Art. 5. - (1)** The employer shall take all the necessary measures in order to ensure that the work equipment, whose safety depends on the installing conditions, is subject to an initial checking (after installation and before the first use) and to a checking after every assembling in a new place, made by authorized persons, in accordance with the national laws and/or practices, in order to ensure a correct installment and a good functioning of that working equipment.

(2) In order to guarantee that the safety and health requirements are met and that these deteriorations are detected and remedied on time, the employer shall take all the necessary measures so that the work equipment, which is under some influences that may generate deteriorations liable to be the source of some dangerous situations, is subject to:

a) periodic inspections and, as the case may be, to periodic trials, performed by authorized private or legal entities, in accordance to the national laws and/or practices;

b) some special inspections, performed by authorized private or legal entities, in accordance to the national laws and/or practices, every time when exceptional events took place, which could have had damaging consequences for the safety of the work equipment, such as changing the work process, accidents, natural phenomena, extended periods of interruption;

(3) The results of these inspections shall be registered and put at the disposal of the Labor Inspection at their request. They are kept for a corresponding period of time, e.g, depending on the producers recommendations or specification.

(4) When work equipment is used outside the undertaking it must be accompanied by physical evidence that the last inspection has been carried out.

(5) The Ministry of Labour, Social Solidarity and Family established the methods of performing these inspections.

## **Section 3 Work equipment with specific risks. Ergonomics and health at the workplace**

**Art. 6. -** When the use of work equipment is likely to involve a specific risk to the safety or health of workers, the employer shall take the measures necessary to ensure that:

a) the use of work equipment is restricted to those persons given the task of using it;

b) in the case of repairs, modifications, maintenance or servicing, the workers concerned are specifically designated to carry out such work.

**Art. 7. -** The working posture and position of workers while using work equipment and ergonomic principles must be taken fully into account by the employer when applying minimum health and safety requirements.

## **Section 4 Informing the workers**

**Art. 8. -** Without prejudice to the provisions of Section 5 of Chapter III of Law no.319/2006, the employer shall take the measures necessary to ensure that workers

have at their disposal adequate information and, where appropriate, written instruction work files on the work equipment used at work.

**Art. 9. - (1)** The information and the written instruction work files stipulated on article 8 shall must contain at least adequate safety and health information concerning:

- a) the conditions of use of work equipment,
- b) foreseeable abnormal situations,
- c) the conclusions to be drawn from experience, where appropriate, in using work equipment.

**(2)** Workers must be made aware of dangers relevant to them, work equipment present in the work area or site, and any changes affecting them, in as much as they affect work equipment situated in their immediate work area or site, even if they do not use such equipment directly

**(3)** The information and the written instructions must be comprehensible to the workers concerned.

## **Section 5**

### **Training, consultation and participation of workers**

**Art. 10. -** Without prejudice to the provisions of article 12 of the Chapter III of Law no.319/2006, the employer shall take the measures necessary to ensure that:

- a) workers given the task of using work equipment receive adequate training, including training on any risks which such use may entail,
- b) workers referred to in the second indent of article 6(b) receive adequate specific training.

**Art. 11. -** Consultation and participation of workers and/or of their representatives shall take place in accordance with Section 6 of Chapter III of Law no.319/2006.

## **CHAPTER III**

### **FINAL PROVISIONS**

**Art. 12. -** Strictly technical adaptations of the Annexes as a result of:

- a) the adoption of Romanian technical regulations which transpose community legislation on technical harmonization and standardization of work equipment, and/or
- b) technical progress, changes in international regulations or specifications or knowledge in the field of work equipment shall be adopted by the Ministry of Labour, Social Solidarity and Family.

**Art. 13. - (1)** For small and medium undertakings, the Ministry of Labour, Social Solidarity and Family may establish, if necessary, the conditions for practical implementation of point 4 of Annex II, which is approved by the Order of the Minister of Labour, Social Solidarity and Family

**(2)** The Ministry of Labour, Social Solidarity and Family report to the Commission every five years regarding the implementation of the this Decision, indicating the viewpoints of social partners.

**Art. 14. -** The Annex 1 and 2 are fully part of this Decision.

**Art. 15. -** The present decision enters in force on the date of 1st of October 2006.

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The present decision transposes Directive 89/655/ECC regarding the minimal safety and health requirements for the use of work equipment by workers at work, which is the second particular directive for the purposes of article 16 paragraph (1) of Directive 89/391/ECC, amended through directives 95/63/EC and 2001/45/EC, published in the Official Journal of the European Communities (OJEC) no. L 393 of 30/12/1989 and amended through OJCE no. L 335 of 30/12/1995 and no. L 195 of 19/07/2001.

București, 30 august 2006.  
Nr. 1.146.

**ANNEX no.1**

## **MINIMUM REQUIREMENTS REFERRED TO IN ARTICLE 4 (1) (a) (ii) and (b) 1.**

### **1. General comment**

**1.1.** The obligations laid down in the present annex apply having regard to the provisions of the present government decision and where the corresponding risk exists for the work equipment in question.

**1.2.** The following minimum requirements, in as much as they apply to work equipment in use, do not necessarily call for the same measures as the essential requirements concerning new work equipment.

### **2. General minimum requirements applicable to work equipment**

**2.1.** Work equipment control devices which affect safety must be clearly visible and identifiable and appropriately marked where necessary.

**2.1.1.** Except where necessary for certain control devices, control devices must be located outside danger zones and in such a way that their operation cannot cause additional hazard. They must not give rise to any hazard as a result of any unintentional operation.

**2.1.2.** 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/or the means quickly to avoid hazards caused by the starting and/or stopping of the work equipment.

**2.1.3.** 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.

**2.2.** It must be possible to start work equipment only by deliberate action on a control provided for the purpose.

**2.2.1.** The same shall apply:

- a)** to restart it after a stoppage for whatever reason,
- b)** 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 hazard.

**2.2.2.** This requirement does not apply to restarting or a change in operating conditions as a result of the normal operating cycle of an automatic device.

**2.3.** All work equipment must be fitted with a control to stop it completely and safely.

**2.3.1.** Each work station must be fitted with a control to stop some or all of the work equipment, depending on the type of hazard, so that the equipment is in a safe state.

**2.3.2.** 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.

**2.4.** 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.

**2.5.** Work equipment presenting risk due to falling objects or projections must be fitted with appropriate safety devices corresponding to the risk.

Work equipment presenting hazards 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.

**2.6.** 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.

**2.7.** 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.

## **2.8.**

**2.8.1.** 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 to prevent access to danger zones or to halt movements of dangerous parts before the danger zones are reached.

**2.8.2.** The guards and protection devices must:

- a) be of robust construction,
- b) not give rise to any additional hazard,
- c) not be easily removed or rendered inoperative,
- d) be situated at sufficient distance from the danger zone,
- e) not restrict more than necessary the view of the operating cycle of the equipment,
- f) allow operations necessary 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.

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

**2.10.** 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.

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

**2.12.** Work equipment may be used only for operations and under conditions for which it is appropriate.

**2.13.** 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. If any machine has a maintenance log, it must be kept up to date.

**2.14.** 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.

**2.15.** Work equipment must bear the warnings and markings essential to ensure the safety of workers.

**2.16.** 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.

**2.17.** 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.

**2.18.** 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.

**2.19.** All work equipment must be appropriate for protecting exposed workers against the risk of direct or indirect contact with electricity.

## **3. Additional minimum requirements applicable to specific types of work equipment**

### **3.1. Minimum requirements for mobile work equipment, whether or not self-propelled**

**3.1.1.** Work equipment with ride-on workers must be fitted out in such a way as to reduce the risks for workers during the journey. Those risks must include the risks of contact with or trapping by wheels or tracks.

**3.1.2.**

**3.1.2.1.** Where an inadvertent seizure of the drive unit between an item of mobile work equipment and its accessories and/or anything towed might create a specific risk, such work equipment must be equipped or adapted to prevent blockages of the drive units.

**3.1.2.2.** Where such seizure cannot be avoided, every possible measure must be taken to avoid any adverse effects on workers.

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

**3.1.4.**

**3.1.4.1.** Mobile work equipment with ride-on workers must be designed to restrict, under actual conditions of use, the risks arising from work equipment rollover:

a) either by a protection structure to ensure that the equipment does not tilt by more than a quarter turn, or

b) a structure giving sufficient clearance around the ride-on workers if the tilting movement can continue beyond a quarter turn, or

c) by some other device of equivalent effect.

**3.1.4.2.** These protection structures may be an integral part of the work equipment.

**3.1.4.3.** These protection structures are not required when the work equipment is stabilized during operation or where the design makes roll over impossible.

**3.1.4.4.** 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.

**3.1.5.** 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.:

a) by the installation of an enclosure for the driver, or

b) by a structure preventing the fork-lift truck from overturning, or

c) 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 the workers carried, or

d) 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.

**3.1.6.** Self-propelled work equipment which may, in motion, engender risks for persons must fulfil the following conditions:

a) the equipment must have facilities for preventing unauthorized start-up;

b) 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;

c) 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;

d) where the driver's direct field of vision is inadequate to ensure safety, adequate auxiliary devices must be installed to improve visibility

e) 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;

f) work equipment which constitutes a fire hazard, either on its own or in respect of whatever it is towing and/or carrying and which is liable to endanger workers, must be equipped with appropriate fire-fighting appliances where such appliances are not available sufficiently nearby at the place of use;

g) remote-controlled work equipment must stop automatically once it leaves the control range;

h) 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.

### **3.2. Minimum requirements for work equipment for lifting loads**

**3.2.1.** When work equipment for lifting loads is installed permanently, its strength and stability during use must be assured, having regard, in particular, to the loads to be lifted and the stress induced at the mounting or fixing point of the structures.

#### **3.2.2.**

**3.2.2.1.** Machinery for lifting loads must be clearly marked to indicate its nominal load, and where appropriate a load plate giving the nominal load for each configuration of the machinery.

**3.2.2.2.** Accessories for lifting must be marked in such a way that it is possible to identify the characteristics essential for safe use.

**3.2.2.3.** Work equipment which is not designed for lifting persons but which might be so used in error must be appropriately and clearly marked to this effect.

**3.2.3.** Permanently installed work equipment must be installed in such a way as to reduce the risk of the load:

- a) striking workers;
- b) drifting dangerously or falling freely;
- c) being released unintentionally.

#### **3.2.4.**

**3.2.4.1.** Work equipment for lifting or moving workers must be such as to:

- a) prevent the risk of the car falling, where one exists, by suitable devices;
- b) prevent the risk of the user himself falling from the car, where one exists;
- c) prevent the risk of the user being crushed, trapped or struck, in particular through inadvertent contact with objects;

d) ensure that persons trapped in the car in the event of an incident are not exposed to danger and can be freed.

**3.2.4.2.** If, for reasons inherent in the site and height differences, the risks referred to in point 3.2.4.1 (a) cannot be avoided by any safety measures, an enhanced safety coefficient suspension rope must be installed and checked every working day.'

### **3.3. Minimal requirements applicable for electrical work equipments and installations**

**3.3.1.** Electrical work equipments and installations shall be designed, manufactured, mounted, maintained and used so that to ensure protection against hazards generated by electrical energy and external influences.

**3.3.1.1.** To ensure protection against hazards arising from the electrical equipment, measures of technical nature should be prescribed in order to ensure:

a) that persons are adequately protected against danger of physical injury, which might be caused by direct or indirect electrical contact;

b) that temperatures, arcs or radiation which would cause a danger for life or health of persons, are not produced;

c) that work equipment should be adequate for environmental conditions to avoid fire and explosions.

d) that persons and property are adequately protected against dangers caused by the electrical equipment which are revealed by experience;

e) that the insulation of electrical equipment must be suitable for foreseeable conditions.

**3.3.1.2.** To ensure protection against hazards, which may be caused by external influences, electrical equipment shall:

- a) meets mechanical requirements so that workers and persons which are in the environment, are not endangered;
- b) be resistant to expected environmental conditions, so that workers and persons which are in the environment, are not endangered;
- c) not endanger workers and persons, in foreseeable conditions of overload.

### **3. 3.2.**

**3.3.2.1.** To ensure protection against electrical contact, direct or indirect, at electrical work equipment or installation, measures of a technical nature shall be prescribed, along with measures of organizing nature.

**3.3.2.2.** To ensure protection against direct electrical contact, measures of a technical nature shall be prescribe, as follow:

- a) coating with insulating materials of live parts (protection insulation) of electrical equipment and installation
- b) closing in cases or coating with external envelopment
- c) fencing
- d) protection by laying out in inaccessible places to ensure minimum safety distances
- e) de-energizing of live parts of electrical equipment or installation which are working on and verifying tension presence
- f) using of special devices for earthing and short circuit
- g) using of personal electric insulated equipment
- h) energizing at a very low safety voltage
- i) electric potential compensation and earth insulation of the work platform.

**3.3.2.3.** To ensure protection against direct electrical contact, measures of organizing nature shall be prescribed, as follows:

- a) working at electric installation (servicing, repairing, connecting) should be done only by trained and tested personnel for this job.
- b) making interventions based on one of the working forms
- c) material delimitation (fencing) of the work place
- d) progress schedule of intervention operations at electrical installations
- e) elaboration of working instructions for each intervention at electrical installations
- f) establishing and executing (performing) of periodical tests of technical safety measures against direct electrical contact

**3.3.2.4.** Interventions on installations, tools, equipments and apparatus, which use power supply, are allowed only based on of one of working forms, as it follows:

- a) written working authorizations (WA)
- b) own technical instruction of labor protection (OTI-LP)
- c) working duties (WA)
- d) verbal orders (SD)
- e) minutes of proceedings (MP)
- f) working obligations (WO)
- g) self responsibility (OR)

### **3. 3.3.**

**3.3.3.1.** For protection against direct electrical contact, measures and protective equipment of technical nature should be developed and applied, changing of these measures and protective equipment with measures of organizing nature being forbidden. To avoid electric shock by indirect electric contact, a main protective measure that ensure protection in any foreseeable conditions, and a second protective measure that ensure protection in case of failure of the main protective measure, should be applied. These two protective measures shall be applied so that they do not cancel each other.

**3.3.3.2.** To ensure protection against direct electrical contact, one of these technical measures shall be applied:

- a) using very low safety voltage (VLSV)
- b) earthing



- c) protective zero link
- d) additional insulation for protection, applied on the equipment, in production process
- e) insulation of site
- f) protection insulation
- g) electric potential compensation and/or leading
- h) automatic tripping in case of a dangerous failure overload or over current
- i) using of protective insulated equipment

**3.3.3.3.** It is forbidden to use as main protection as the measures indicated in 3.3.3.2 e, g, h, i.

**3.3.3.4.** Exceptions are the domestic electrical installations, at which the automatically tripping at failure current the main protective measure and overhead low voltage poles, where leading of electrical potential is the main protective measure.

**3.3.4.** At high voltage installations and equipments, the protection system against electrocution by indirect electrical contact shall be made by protection earthing which is a compulsory main measure, together with other protective measure

### **3. 3.5.**

**3.3.5.1.** Electrical installations and equipment shall be chosen taking into account the potentially explosive atmosphere

**3.3.5.2.** The fencing shall be done by the electric installation and equipment designer, at the user request.

**3.3.6.** At electrical installations and work equipment, the calculation values, and the limited admitted values of the current in human body, electrical human body impedance, contact and step tension and working tensions shall be in accordance with applicable technical requirements

**3.3.7.** Isolated neutral systems shall be provided with automatic protection by controlling the insulation resistance which signal and / or trip in case of earthing. Electrical systems of the working places with fire and explosion hazard as well as those of explosives or fuel warehouse shall be provided with devices to ensure automatic protection at failure current (APFC)

**3.3.8.** At high voltage installations, mechanical or electrical locks shall be provided, so that opening of cases or fencing protection is allowed only after the electrical equipment is off and the locking device can be operated only with tool.

**3.3.9.** Distances, spaces and/or protection fences shall be provided so that operation, maintenance and repair of electric installations and equipment can be made without danger.

**3.3.10.** At the elevating machinery or installations with mobile elements such as overhead crane in the non electric production zone or space, live parts in opening construction are allowed, without closing cases, on condition of ensuring the protection against touching or approaching of live parts, by placing them at appropriate heights from the access and walking ways and/or by closed fencing on access ways

**3.3.11.** Motor cranes which work near overhead electrical lines shall be designed with signaling device of entrance of the crane boom in the influence zone of electrical lines.

**3.3.12.** The electrical work equipment/installation of I class of protection shall be protected against direct electrical contact of live parts and shall be protected with protective links to ensure protection in case of failure.

**3.3.13.** At electrical working installation and equipment of I class of protection, the possibility of link protection shall be :

a) in case of a fixed electrical equipment/installation, provided with two earthing terminals: one, inside the terminal plate, near the line terminals, for connecting the protection line from the supply cord of the equipment/installation, and the second terminal on the case of the equipment/installation, outside, for a visible link of earthing, or another protection installation.

b) in case of a portative or mobile equipment, provided with a flexible

supply cord, provided with a protective terminal plug or the electrical equipment should be provided with the possibility of plugging with a flexible power cord with protective terminal.

**3.3.14.** The electrical work equipment/installation of II class of protection shall be provided with protection against direct contact of live parts and shall be provided, from the manufacturing stage, with an additional insulation, doubled or strengthened.

**3.3.15.** The electrical work equipment/installation of III class of protection shall be provided with protection against direct contact of live parts, and shall not provide a higher tension than a very low supply voltage

**3. 3.16.**

**3.3.16.1.** Electrical installations in experimental stage shall accomplished all of conditions provided in regulations and applicable technical regulations for protection against electrical hazards or technical accidents.

**3.3.16.2.** The electrical work installations and equipments shall be verified at acceptance, before operating, and then, periodically, in use, and after every repair or modification, plugging in the installation, device or equipment which is not in accordance with one of these verifications, shall be forbidden.

**3.3.16.3.** The electrical work installations and equipments can be acceptanced and operated only after they use verified that all the regulations and applicable technical regulations are obereyed.

**3.3.17.** At electrical work installation and equipment, it is forbidden to modify the design during using, servicing, maintaining and restarting. In special cases modifications are allowed only with the designer of electrical work installations or equipment of the agreement.

**3.3.18.** Protective equipment and devices shall be verified, in accordance with the provision of regulations and applicable technical regulations, before use, at operation, after reparations and modifications and, then, periodically (in use)

**3.3.19.** Use of the electrical work equipment/installation of I class of protection shall be done as follows:

a) execute and verify periodically, the protection links for ensuring the protection against electrical shock in case of a failure followed by a dangerous contact tension

b) ensure and to verify, periodically, automatic tripping of electrical equipment/installation or the failure sector and disappearing of dangerous contact tension

c) verify periodically, that protection against of the direct contact of live parts is not replaced or damaged.

**3.3.20.** Use of the electrical work equipment/installation of II class of protection shall be done as follows:

a) verify periodically, that additional insulation of electrical equipment /installation is not damaged or replaced.

b) verify periodically, that protection against of the direct contact of live parts is not replaced or damaged.

**3.3.21.**Use of the electrical work equipment/installation of III class of protection shall be done as follows:

a) energize the electrical equipment or installation at the very low supply voltage, for the designed voltage to be used

b) the power supply should be designed so as not to permit appearance in the very low tension circuit of a higher tension. If it is used a step down transformer, this shall be a protective transformer

c) insulation of the very low tension circuit should be so that is does not permit the appearance of a higher tension from other circuits, in the very low tension circuit.

d) verify periodically that protection against direct contact of live parts, is not replaced or damaged

**3. 3.22.**

**3.3.22.1.** In case of electrical work installations or equipments at which works on are operated under no tension, the following elements, shall be under no tension:

- a) energized live parts, where work is so be done
- b) energized live parts, there is no work, but are placed at a distance less than the admissible approaching limit for persons or working objects (equipment, tools), indicated in specified technical documentation
- c) energized live parts of installations placed on a bigger distance that admissible limit, but, because of working that is executed near them, must be not energized

**3.3.22.2.** In case of working with live parts not energized, earthing is necessary and short circuit of live lines, including ground conductor, in case of overhead power lines, operation must be executed immediately after verifying the lack of tension

### **3. 3.23.**

**3.3.23.1.** In case of electrical work installations or equipment at which operation are executed under tension or not, insulated protective equipment and devices shall be used.

**3.3.23.2.** At working on low voltage tension, personal insulated protective equipment shall be used, which is the only one measure of technical nature, additional with measure of organizing nature

**3.3.23.3.** At working on high voltage tension installation, insulated protective equipment and devices shall be used with other protective measures.

**3.3.23.4.** In case of operations which are executed on not energized of electrical installations or equipment, they shall be executed by trained and tested personnel for working in energized installations

**3.3.24.** Installations or working places where there are in use or operated electrical equipment, shall be equipped depending on working and operation conditions with these protective devices:

- a) protective devices which are made for worker protection by insulated him, from live elements, or earth, respectively insulated rods, for switchgear handling, tension mobile devices handling, short circuit mounting device, tools with insulated handle, mats and insulated platforms, insulated gloves and shoes
- b) mobile tension detectors, which verify presence or not of the tension
- c) mobile devices for earthing and short circuit
- d) panels, walls, fence
- e) signing panel

**3.3.25.** Installations or working electrical equipment shall be operated, maintained, adjusted and energized only by qualified electrician, authorized from the point of view of safety work. Authorization of personnel for working in technical electrical installations in operating activity, maintenance or repairing shall be done in accordance with authorization of electricians regulations, from the point of view of safety work, taking into account the medical examination, psychological examination and tests for revising professional knowledge, safety and health at work and first aid examinations.

**PROVISIONS CONCERNING THE USE OF WORK  
EQUIPMENT REFERRED TO IN ARTICLE 4 (3)**

**1. General provisions for all work equipment**

**1.1.** The obligations laid down in this Annex apply having regard to the provisions of this Decision and where the corresponding risk exists for the work equipment in question. 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 and/or removed in a safe manner.

**1.2.** Work equipments must be erected or dismantled under safe conditions, in particular observing any instructions which may have been furnished by the manufacturer.

**1.3.** Work equipments which may be struck by lightning while being used must be protected by devices or appropriate means against the effects of lightning.

**2. Provisions concerning the use of mobile equipment, whether or not self-propelled**

**2.1.** Self-propelled work equipments shall be driven only by workers who have been appropriately trained in the safe driving of such equipment.

**2.2.** If work equipment is moving around in a work area, appropriate traffic rules must be drawn up and followed.

**2.3.** Organizational measures must be taken 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.

**2.4.** The transport of workers on mechanically driven mobile work equipments is authorized only where safe facilities are provided to this effect. If work must be carried out during the journey, speeds must be adjusted as necessary.

**2.5.** Mobile work equipments 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.

**3. Provisions concerning the use of work equipment for lifting loads**

**3.1. General considerations**

**3.1.1.** Work equipments 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.

**3.1.2**

**3.1.2.1.** Persons may be lifted only by means of work equipments and accessories provided for this purpose.

**3.1.2.2.** Without prejudice to article 6 of Law no.319/2006 concerning work safety and health, exceptionally, work equipments which is not specifically designed for the purpose of lifting persons may be used to this effect, provided appropriate action has been taken to ensure safety in accordance with national legislation and/or practice laying down appropriate supervision.

**3.1.2.3.** 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. In the event of danger, there must be reliable means of evacuating them.

**3.1.3.** Unless required for the effective operation of the work, measures must be taken to ensure that workers are not present under suspended loads.

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.

**3.1.4.** Lifting accessories must be selected as a function of the loads to be handled, gripping points, attachment tackle and the 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.

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

### **3.2. Work equipment for lifting non-guided loads**

**3.2.1.** 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 to avoid collision between loads and/or the work equipment parts themselves.

**3.2.2.** When using mobile work equipment for lifting non-guided loads, measures must be taken to prevent the equipment from tilting, overturning or, if necessary, moving or slipping. Checks must be made to ensure that these measures are executed properly.

**3.2.3.** 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.

**3.2.4.** 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.

**3.2.5.** All lifting operations must be properly planned, appropriately supervised and carried out to protect the safety of workers. In particular, if a load has to be lifted by two or more pieces of work equipment for lifting non-guided loads simultaneously, a procedure must be established and applied to ensure good coordination on the part of the operators.

**3.2.6.** 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 to avoid exposing workers to any resultant risks. Suspended loads must not be left without surveillance unless access to

**3.2.7.** 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 protection measures, in particular, to avoid work equipment turning over must be taken to avoid any risks to workers.'

## **4. Provisions concerning the use of work equipment provided for temporary work at a height**

### **4.1. General provisions**

#### **4.1.1.**

**4.1.1.1.** If, pursuant to Article 7 of Law no.319/2006 concerning work safety and health and Article 3 of this Decision, 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. 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 allow passage without danger.

**4.1.1.2.** The most appropriate means of access to temporary workplaces at a height must be selected 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.

**4.1.2.** Ladders may be used as work stations for work at a height only under circumstances in which, given point 4.1.1, the use of other, safer work equipment is not justified because of the low level of risk and either the short duration of use or existing features on site that the employer cannot alter.

**4.1.3.** 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.

**4.1.4.** Depending on the type of work equipment selected on the basis of the foregoing, the appropriate measures for minimising the risks to workers inherent in this type of equipment must be determined. If necessary, provision must be made for the installation of safeguards to prevent falls. 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.

**4.1.5.** When the performance of a particular task requires a collective safeguard to prevent falls to be temporarily removed, effective compensatory safety measures must be taken. The task 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.

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

#### **4.2. Specific provisions regarding the use of ladders.**

**4.2.1.** 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, so that they cannot be displaced and so that swinging is prevented.

**4.2.2.** The feet of portable ladders must be prevented from slipping during use by securing the stiles 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 so that the different sections are prevented from moving relative to one another. Mobile ladders must be prevented from moving before they are stepped on.

**4.2.3.** Ladders must be used in such a way that a secure handhold and secure support are available to workers 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

#### **4.3. Specific provisions regarding the use of scaffolding**

**4.3.1.** 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 recognised standard configuration.

**4.3.2.** Depending on the complexity of the scaffolding chosen, an assembly, use and dismantling plan must be drawn up by a competent person. This may be in the form of a standard plan, supplemented by items relating to specific details of the scaffolding in question.

**4.3.3.** 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. It must be ensured that the scaffolding is stable. Wheeled scaffolding must be prevented by appropriate devices from moving accidentally during work at a height.

**4.3.4.** The dimensions, form and layout of scaffolding decks must be appropriate to the nature of the work to be performed and suitable for the loads to be carried and permit work and passage in safety. Scaffolding decks must be assembled in such a way that their components cannot move in normal use. There must be no dangerous gap between the deck components and the vertical collective safeguards to prevent falls

**4.3.5.** When parts of a scaffolding are not ready for use, for example during assembly, dismantling or alteration, they must be marked with general warning signs in accordance with the national provisions transposing Directive 92/58/EEC and be suitably delimited by physical means preventing access to the danger zone.

#### **4.3.6.**

**4.3.6.1.** Scaffolding may be assembled, dismantled or significantly altered only under the supervision of a competent person and by workers who must have received appropriate and specific training in the operations envisaged, addressing specific risks in accordance with Article 10 of this Decision, and more particularly in:

- a) understanding of the plan for the assembly, dismantling or alteration of the scaffolding concerned;
- b) safety during the assembly, dismantling or alteration of the scaffolding concerned;
- c) measures to prevent the risk of persons or objects falling;
- d) safety measures in the event of changing weather conditions which could adversely affect the safety of the scaffolding concerned;
- e) permissible loads;
- f) any other risks which the abovementioned assembly, dismantling or alteration operations may entail.

**4.3.6.2.** The person supervising and the workers concerned must have available the assembly and dismantling plan referred to in 4.3.2., including any instructions it may contain.

### **4.4. Specific provisions regarding the use of rope access and positioning techniques**

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

- a) the system must 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);
- b) workers must be provided with and use an appropriate harness and be connected by it to the security rope;
- c) the work rope must be equipped with safe means of ascent and descent and have a self-locking system to prevent the user falling should he lose control of his movements. The security rope must be equipped with a mobile fall prevention system which follows the movements of the worker;
- d) the tools and other accessories to be used by a worker must be secured to the worker's harness or seat or by some other appropriate means;
- e) the work must be properly planned and supervised, so that a worker can be rescued immediately in an emergency;
- f) in accordance with Article 10 of this Decision, the workers concerned must receive adequate training specific to the operations envisaged, in particular rescue procedures.

**4.4.2.** In exceptional circumstances where, in view of the assessment of risks, the use of a second rope would make the work more dangerous, the use of a single rope may be permitted, provided that appropriate measures have been taken to ensure safety in accordance with national legislation and/or practice.