

Republic of Latvia  
Cabinet  
Regulation No. 359  
Adopted 28 April 2009

## **Labour Protection Requirements in Workplaces**

*Issued pursuant to  
Section 25, Clause 1  
of the Labour Protection Law*

### **I. General Provisions**

1. These Regulations prescribe the health and safety requirements for workers in workplaces.
2. These Regulations, excluding Paragraph 29, Annexes 3 and 4, shall not apply to workplaces:
  - 2.1. in automotive, river, sea, air and railway vehicles;
  - 2.2. in mineral-extracting industries;
  - 2.3. in fishing vessels;
  - 2.4. in agriculture and forestry undertakings, if the workplaces are not located in the buildings of these undertakings; or
  - 2.5. temporary and mobile workplaces, including on construction sites.
3. These Regulations do not prescribe the requirements for the safety and health protection of workers in workplaces in emergency situations and catastrophes.
4. Employer shall be responsible for compliance with these Regulations.
5. Compliance with these Regulations shall be controlled by the State Labour Inspectorate.

### **II. Requirements for Safety and Health Protection for Workers**

6. The requirements specified in this Chapter shall be applied, taking into account the specific nature of the workplace, nature of the work, working conditions and working environment risk.
7. Requirements for the strength and stability of buildings in which workplaces are located, shall be determined by the regulatory enactments regulating the field of construction.
8. Electric appliances shall be designed, installed and maintained so as:
  - 8.1. not to present a fire or explosion hazard;
  - 8.2. to protect workers from electrical trauma caused by direct or indirect contact with an electrical appliance; and
  - 8.3 materials and protection devices conform to the voltage, working conditions and competence of the workers who have access to electrical appliances or parts thereof.

9. Emergency routes and exits shall be designed, constructed and maintained in compliance with the following requirements:
- 9.1. emergency routes and exits, as well as doors leading to them, and routes in the territory of the undertaking (hereinafter – traffic route) shall be clear so that a safe area may be reached as quickly as possible;
  - 9.2. emergency routes and exits shall ensure rapid and as safe as possible evacuation of workers from all workplaces in case of danger;
  - 9.3. emergency doors shall open outwards;
  - 9.4. emergency doors shall not be locked or fastened in such a way that they may not be easily opened while workers are present;
  - 9.5. emergency routes and exits shall be marked in accordance with the requirements for the use of safety signs at workplaces (inside);
  - 9.6. the number, location and size of emergency routes and exits shall be determined depending on the number, layout and size of the workplaces, as well as on the maximum potential number of workers; and
  - 9.7. emergency routes and exits where illumination is necessary shall be equipped with emergency lighting of sufficient intensity.
10. Workplaces shall be provided with easily accessible, simple to use and suitable fire-extinguishing installations (if possible, automatic), automatic fire-alarm systems, fire-detectors and fire-fighting devices in adequate quantities, taking into account the dimensions and purposes for use of the building, work equipment, physical and chemical properties of the substances used and the maximum possible number of workers.
11. The equipment, systems and devices referred to in Paragraph 10 of these Regulations shall be regularly inspected and maintained in order, and location places thereof shall be indicated with signs which shall be placed in accordance with the regulatory enactments regarding labour protection requirements for the use of safety signs.
12. In planning, organising and maintaining a territory, the following requirements shall be complied with:
- 12.1. the territory shall be, as much as possible, planted with greenery, and shall have well-organised traffic routes;
  - 12.2. waste shall be collected, sorted and temporarily stored in specially arranged places; and
  - 12.3. warehouses for fine (powder-like) materials shall be located at a distance of least 25 metres from other buildings (if the size of the territory of the undertaking allows this).
13. Requirements regarding ventilation of enclosed workrooms:
- 13.1. a supply of fresh air shall be ensured, taking into account the nature of the work and the physical load of workers;
  - 13.2. the concentration of those chemical substances or products, which may cause or causes a hazard to the health of workers in the work environment and, when coming into contact with a human body, may cause an injury, occupational disease or other health disorders (hereinafter – chemical substance), shall not exceed the maximum permissible concentration of chemical substances and chemical products in the air of the work environment in accordance with the regulatory enactments regarding labour protection requirements, when coming into contact with chemical substances in workplaces;
  - 13.3. air-conditioning or ventilation systems shall be maintained in good order, regularly cleaned and the efficiency of their operation shall be inspected;

13.4. a ventilation control system which detects disturbances in the operation of the ventilation system shall be installed (if such control system is necessary in order to ensure the safety and health protection of workers);

13.5. the operation of mechanical ventilation systems and air conditioning equipment shall not cause draughts, that exceed the permissible air movement rate;

13.6. in installing supply-exhaust ventilation and air heating, air re-circulation of not more than 90% the total air supply volume shall be permitted. Air re-circulation from premises in which work involves chemical substances, chemical products, asbestos, bacteria, viruses, radioactive substances, as well as from premises in which work presenting a fire risk or an explosion risk is performed is prohibited;

13.7. if, by utilising technical means, it is not possible to prevent or reduce the concentration of chemical substances to occupational exposure limit value for chemical substances, local exhaust ventilation shall be installed in the workplaces where chemical substances are discharged in the air in order to prevent chemical substances from entering the respiratory organs of the workers, as well as neighbouring workplaces and the surrounding environment; and

13.8. ventilation system shall be connected with fire-alarm systems or fire-extinguishing equipment, so that, in case of fire, the ventilation is switched off and the fire does not spread to other premises.

14. Production waste and chemical substances or chemical products that may pollute the air of the working environment or atmosphere as a whole and pose a danger to the safety and health of the workers, shall be stored and managed in accordance with the requirements specified in the regulatory enactments regarding the management of hazardous waste.

15. Requirements regarding the microclimate of premises:

15.1. a microclimate (temperature, relative air humidity, air movement rate) of work premises that conforms to the nature of the work and the physical load of workers shall be ensured, depending on the physical load necessary for the performance of the relevant work (Annex 1):

15.1.1. Category I – work is not associated with physical efforts or requires very slight or slight physical efforts;

15.1.2. Category II – work which is associated with medium or great physical efforts; and

15.1.3. Category III – heavy work.

16. Requirements regarding the lighting of premises:

16.1. workplaces shall be ensured with natural lighting and equipped with artificial lighting in such a way that the total lighting is adequate for the safety and health of workers, taking into account Annex 2 to these Regulations;

16.2. lighting devices in workrooms and passages shall be located so as to protect workers from risk of accidents and occupational diseases that are related to insufficient lighting;

16.3. workplaces where harm to the safety and health of the workers may arise as a result of sudden switching off of light, shall be provided with sufficient emergency lighting; and

16.4. lighting devices shall be serviced and cleaned regularly.

17. Windows and skylights shall be designed, installed and maintained in compliance with the following requirements:

17.1. windows, skylights and glass partitions shall allow for avoidance of excessive effects of sunlight in workplaces, taking into account the specific nature of the work and the workplace;

17.2. workers shall have the possibility of opening, closing, adjusting or fixing windows, skylights and ventilation openings in a safe manner;

17.3. open windows, skylights or ventilation openings shall not pose danger to the workers; and

17.4. windows and skylights shall be designed together with the equipment for their cleaning, or shall be fitted with devices that allow cleaning of them without exposing to risk the workers carrying out such work or who are present in the proximity of the windows.

18. Floors, walls, ceilings and roofs of the premises shall be designed, constructed and maintained in compliance with the following requirements:

18.1. the floors of the premises shall be stable; they may not be slippery or have dangerous bumps, holes or slopes that may endanger the safety and health of workers;

18.2. workplaces shall have sufficient thermal insulation, taking into account the nature of the work and the physical load of workers;

18.3. the floors, walls and ceilings in the premises shall be easy to clean or refurbish in conformity with the hygiene requirements;

18.4. transparent or translucent walls (in particular all-glass partitions in work rooms and in proximity to traffic routes) shall be clearly marked and made of safe material or demarcated in such a way as to prevent the workers from running into walls or injuries in case the walls shatter; and

18.5. measures shall be taken in order to prevent the performance of work on or access of workers to roofs that are made of insufficiently durable materials or may otherwise endanger the safety and health of workers, unless such equipment is provided which allows carrying out the work in a safe manner.

19. The stairs existing in work places shall be maintained in working order and shall allow the freedom of movement. They shall not be slippery or have dangerous bumps, holes or slopes that may endanger the safety and health of workers. If necessary, stairs shall be marked with safety signs in accordance with the regulatory enactments regarding the labour protection requirements in the use of safety signs.

20. Doors and gates shall be designed, constructed and maintained in compliance with the following requirements:

20.1. the location, number and dimensions of doors and gates, and the materials used therein, shall be determined by the specific nature and use of the premises;

20.2. transparent doors shall be labelled at a conspicuous height;

20.3. revolving doors and gates shall be transparent or have translucent elements;

20.4. transparent or translucent parts in doors and gates, which are not made of durable material or may otherwise pose a risk of incurring injuries or traumas, shall be protected against breakage;

20.5. sliding doors shall be fitted with a safety device that prevents them from derailing and falling over;

20.6. doors and gates opening upwards shall be fitted with a mechanism that prevents such doors and gates from falling down;

20.7. doors opening to emergency routes and exits shall be marked by safety signs and can be opened from the inside at any time without assistance;

20.8. doors for pedestrians shall be installed in proximity to the gates intended for vehicles, if it is not possible to ensure the passage of pedestrians through such doors;

20.9. doors for pedestrians shall be clearly marked and unobstructed;

20.10. the operation of mechanical doors and gates shall not endanger workers, the doors and gates shall be fitted with easily identifiable and accessible emergency shut-down devices, which allow them to be opened if the doors and gates do not open automatically due to the failure of the power supply;

20.11. gates intended for vehicles shall be marked with warning colours from the inside; and

20.12. emergency doors may not be sliding doors or revolving doors.

21. Traffic routes and areas in which the life or health of workers may be endangered (hereinafter – danger area) shall be designed, organised and maintained in compliance with the following requirements:

21.1. traffic routes shall be located in such a manner as to ensure easy and safe access for pedestrians and vehicles to the routes, as well as not to pose danger to the workers employed in proximity to such traffic routes;

21.2. pedestrian walkways and traffic routes shall conform to the maximum possible number of users;

21.3. if traffic routes are used both by vehicles and pedestrians, pedestrian walkways shall be installed or a safety clearance shall be left for pedestrians, ensuring also safe access to doors or gates, passages for pedestrians, corridors and staircases;

21.4. traffic routes shall be clearly indicated and marked;

21.5. if there are danger areas at workplaces where, due to the specific nature of the work, a risk exists for workers to fall or be injured by falling objects, such places shall be fitted with devices preventing unauthorised entrance of workers into such areas;

21.6. workers who work in danger areas shall be provided with collective or personal protective equipment; and

21.7. danger areas shall be clearly indicated and marked with safety signs in accordance with the regulatory enactments regarding the labour protection requirements in the use of safety signs.

22. Workplace escalators and travelators shall function safely and shall be fitted with safety devices, as well as with easily identifiable and accessible emergency shut-down devices.

23. Loading ramps and platforms shall be designed, constructed and maintained in compliance with the following requirements:

23.1. they shall comply with the dimensions and loading weight of the freight to be transported;

23.2. they shall have at least one exit point;

23.3. if technically possible and necessary, taking into account the labour protection requirements and the platform length, two exit points shall be created; and

23.4. they shall be fitted so as to protect workers from falling from them.

24. Work premises shall be designed, installed and maintained in compliance with the following requirements:

24.1. they shall be sufficiently spacious, high and with adequate air space; and

24.2. free and unused work room space at a workplace shall provide workers with sufficient freedom to move in order to perform their work, but if it is not possible due to the specific nature of the workplace, each worker shall be provided with sufficient freedom to move in the immediate proximity of his or her workplace.

25. Rest areas shall be designed, constructed and maintained in compliance with the following requirements (need not be applied to offices and similar workplaces if there are adequate opportunities for rest during interruptions of work):

25.1. they conform with the specific nature of the work and the number of workers, are comfortable and accessible;

25.2. they shall be sufficiently spacious and have a sufficient number of tables and seats with backrests; and

25.3. if due to the specific nature of work frequent and regular breaks are necessary, but rest rooms have not been installed, there shall be other rooms in which employees can stay during breaks.

26. Changing rooms and lockers shall be designed, installed and maintained in compliance with the following requirements:

26.1. changing rooms shall be installed if wearing of special working clothes is intended in the work process or if such rooms are necessary for reasons of health or politeness;

26.2. changing rooms shall be easily accessible, sufficiently spacious, and equipped with seating and lockers;

26.3. separate changing rooms shall be provided for men and women or, if it is not feasible, separate use of changing rooms shall be ensured for men and women;

26.4. if working conditions are related to the exposure to harmful substances, as well as humidity or dirt, storage of the workers' personal clothing and working clothes in separate lockers shall be provided;

26.5. air exchange or ventilation shall be provided in lockers for storing personal clothing and working clothes, if it is determined by the employer or the trusted representatives of workers; and

26.6. if changing rooms are not installed in accordance with Sub-paragraph 26.1 of these Regulations, each worker shall be provided with a separate (lockable) place for storage of his or her personal clothes and belongings.

27. Showers, washbasins and lavatories shall be designed, installed and maintained in compliance with the following requirements:

27.1. shower rooms shall be installed taking into account the nature of the work to be performed or if it has been determined by the employer or the trusted representatives of the workers. If possible, separate shower rooms for men and women shall be installed. If it is not possible, use of shower rooms shall be ensured separately for men and women;

27.2. shower rooms shall be sufficiently spacious so that they can be used in accordance with the hygiene requirements and without hindrance to others;

27.3. showers shall be equipped with a supply of hot and cold running water;

27.4. if showers are not installed in accordance with Sub-paragraph 27.1 of these Regulations, suitable washbasins with a supply of hot and cold running water shall be installed in the proximity of the workrooms and the changing rooms;

27.5. in the cases referred to in Sub-paragraph 27.4 of these Regulations, if necessary, washbasins shall be demarcated or used separately by men and women;

27.6. if shower rooms or washbasins are installed separately from changing rooms, easy passage from one room to another shall be ensured;

27.7. the number of lavatories and washbasins shall be sufficient, taking into account the number of workers. The relevant rooms shall be provided with the necessary personal hygiene products (toilet paper, soap, towels or devices for hand drying);

27.8. lavatories and washbasins shall be installed near workrooms and rest rooms, changing rooms and shower rooms;

27.9. lavatories and shower rooms shall be equipped with ventilation and the operation thereof shall be ensured; and

27.10. separate lavatories for men and women shall be installed or separate use thereof shall be ensured, as well as, if necessary, a separate cabin shall be installed for handicapped persons.

28. On the basis of a working environment risk assessment, an employer shall evaluate the need to install first aid rooms or places and, taking into account the type of operation, the dimension of the undertaking premises, the number of workers in the undertaking, the frequency of accidents and the hazard of the working environment to the safety and health of workers, shall design, install and maintain one or more first aid rooms or places in compliance with the following requirements:

28.1. first aid rooms or places shall be equipped with the minimum medical materials required for the provision of first aid, first aid equipment and devices;

28.2. easy accessibility with stretchers shall be ensured to the first aid rooms or places;

28.3. the first aid rooms or places are clearly marked in accordance with the requirements for the use of safety signs at workplaces; and

28.4. first aid kits shall be available at all workplaces if it is necessary due to the working conditions, and the location thereof shall be indicated with appropriate safety signs.

29. Workplaces outdoors shall be designed, organised and maintained in compliance with the following requirements:

29.1. workplaces, traffic routes and other areas or installations outdoors which are used in the course of work or where workers are present, shall be organised so that pedestrians and vehicles may move in a safe manner;

29.2. the requirements referred to in Paragraphs 21, 22 and 23 of these Regulations shall also apply to traffic routes leading to specific workplaces and to routes used for the regular maintenance and supervision of installations and loading platforms;

29.3. the requirements referred to in Paragraph 20 of these Regulations shall also apply to workplaces outdoors;

29.4. if necessary, workplaces outdoors shall be equipped with artificial lighting, ensuring the level of lighting in accordance with Annex 3 to these Regulations;

29.5. workers shall be protected against unfavourable weather conditions and from falling objects;

29.6. workplaces shall be ensured against slipping and falling of workers but, if it is not possible, workers shall be ensured with appropriate protective devices;

29.7. workers shall have the possibility to rapidly leave workplaces in cases of accident or fire, or in other situations dangerous to health and life, as well as they shall be ensured with rapid assistance;

29.8. workers shall not be exposed to noise that exceeds the permissible noise level which is specified in the regulatory enactments regarding the labour protection requirements for the protection of workers from risk caused by noise, as well as harmful external influences, including gases, steam, dust and other harmful factors of the working environment;

29.9. workers shall be ensured with appropriate living and rest rooms, which may be heated and where workers have the opportunity to rest, taking into account the requirements referred to in Annex 4 to these Regulations, or the opportunity for warming up shall be ensured. These norms shall not apply to extraordinary circumstances, as well as to works related to rectification of the damage caused by natural disasters; and

29.10. workers shall be ensured with drinking water and protection against natural optical radiation (solar radiation).

### **III. Obligations of Employers**

30. For the safety and health of workers in workplaces, employers shall ensure:

30.1. unobstructed passages for pedestrians and vehicles so that emergency routes and exits may be reached as quickly as possible, as well as unobstructed emergency routes and exits;

30.2. maintenance of work equipment in adequate technical condition, as well as immediately eliminate defects which negatively affect the safety and health of workers;

30.3. cleanliness in workplaces and regular cleaning of workplaces (in particular ventilation equipment), observing hygiene requirements and without posing threat to the safety and health of workers;

30.4. regular inspection and supervision of the operation of safety equipment and devices, which are intended for the reduction or prevention of the effects of work environment factors;

30.5. the observation of the principles of ergonomics, upon reconstructing, modernising and installing workplaces in order to reduce the physical load of workers as much as possible;

30.6. organising of workplaces (especially with respect to doors, stairs, emergency routes and exits, changing rooms, showers, washbasins, lavatories, rest rooms) so that, if necessary, persons with special needs (handicapped persons) may be employed therein; and

30.7. the opportunity for pregnant women or women following childbirth (up to one year) to lie down and rest in appropriate conditions in accordance with the hygiene requirements. The referred to conditions shall be ensured for women who are breastfeeding throughout the breastfeeding period.

### **IV. Closing Provisions**

31. Cabinet Regulation No. 125 of 19 March 2002, Requirements for Labour Protection in Workplaces (*Latvijas Vēstnesis*, 2002, No. 47) is repealed.

32. In relation to workplaces which have been created up to the date of the coming into force of these Regulations, the requirements referred to in Annexes 1, 2 and 3 to these Regulations shall have a recommendatory nature.

33. These Regulations shall come into force on 1 January 2010.

### **Informative Reference to European Union Directive**

These Regulations contain legal norms arising from Council Directive 89/654/EEC of 30 November 1989 concerning the minimum health and safety requirements for the workplace.

Prime Minister,  
Minister for Children, Family and  
Integration Affairs

V. Dombrovskis

Minister for Welfare

U. Augulis

### Requirements for the Microclimate of Work Premises Depending on Physical Load

| No. | Time of the year                                                                        | Work category    | Air temperature (C°) | Relative air humidity (%) | Air movement rate (m/s) |
|-----|-----------------------------------------------------------------------------------------|------------------|----------------------|---------------------------|-------------------------|
| 1.  | Cold time of the year (average air temperature outside work premises + 10 °C or lower)  | I <sup>1</sup>   | 19,0–25,0            | 30–70                     | 0,05–0,15               |
|     |                                                                                         | II <sup>2</sup>  | 16,0–23,0            | 30–70                     | 0,1–0,3                 |
|     |                                                                                         | III <sup>3</sup> | 13,0–21,0            | 30–70                     | 0,2–0,4                 |
| 2.  | Warm time of the year (average air temperature outside work premises exceeding + 10 °C) | I <sup>1</sup>   | 20,0–28,0            | 30–70                     | 0,05–0,15               |
|     |                                                                                         | II <sup>2</sup>  | 16,0–27,0            | 30–70                     | 0,1–0,4                 |
|     |                                                                                         | III <sup>3</sup> | 15,0–26,0            | 30–70                     | 0,2–0,5                 |

**Notes.**

1. Category I – the work is not associated with physical efforts or requires very slight or slight physical efforts (for example, all doers of mental work, work with different control panels, work performed while seated, standing or moving, movement of light items (up to 1 kg)).
2. Category II – work which is associated with medium or great physical efforts (for example, permanent lifting and movement of weights (up to 10 kg), welding, metal processing works).
3. Category III – heavy work (for example, permanent lifting and movement of weights (greater than 10 kg)).

Minister for Welfare

U. Augulis

### Levels of Indoor Lighting Depending on the Workplace and Type of Work\*

| No.  | Workplace or type of work                                  | Em –<br>minimum level<br>of lighting<br>above the work<br>area<br>(lx – luxes) | Notes                                                                                                                                                                                                                                                                         |
|------|------------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.   | Movement areas:                                            |                                                                                |                                                                                                                                                                                                                                                                               |
| 1.1. | traffic routes                                             | 100                                                                            | 1. Lighting at the floor level.<br>Lighting 150 lx, if vehicles are moving<br>along the traffic routes.<br>3. Entrances and exits shall be equipped<br>with transition areas in order to prevent<br>sudden changes in lighting between<br>indoor premises and external light. |
| 1.2. | stairs, escalators, travelators                            | 150                                                                            |                                                                                                                                                                                                                                                                               |
| 1.3. | loading and unloading ramps                                | 150                                                                            |                                                                                                                                                                                                                                                                               |
| 2.   | Living and rest rooms, first aid rooms:                    |                                                                                |                                                                                                                                                                                                                                                                               |
| 2.1. | canteens                                                   | 200                                                                            |                                                                                                                                                                                                                                                                               |
| 2.2. | rest rooms                                                 | 100                                                                            |                                                                                                                                                                                                                                                                               |
| 2.3. | physical exercise halls                                    | 300                                                                            |                                                                                                                                                                                                                                                                               |
| 2.4. | changing rooms, lavatories                                 | 100                                                                            |                                                                                                                                                                                                                                                                               |
| 2.5. | first aid rooms                                            | 500                                                                            |                                                                                                                                                                                                                                                                               |
| 3.   | Management and control rooms:                              |                                                                                |                                                                                                                                                                                                                                                                               |
| 3.1. | management and control measuring device<br>rooms           | 200                                                                            |                                                                                                                                                                                                                                                                               |
| 3.2. | switchboards, post rooms, fax rooms, server<br>rooms       | 500                                                                            |                                                                                                                                                                                                                                                                               |
| 4.   | Warehouses:                                                |                                                                                |                                                                                                                                                                                                                                                                               |
| 4.1. | warehouses, including coldstores                           | 100                                                                            | 200 lx, if the rooms are used without<br>interruption                                                                                                                                                                                                                         |
| 4.2. | sorting and packing areas                                  | 300                                                                            |                                                                                                                                                                                                                                                                               |
| 5.   | Stellage-type storage areas:                               |                                                                                |                                                                                                                                                                                                                                                                               |
| 5.1. | passages free of workers                                   | 20                                                                             | Lighting at the floor level.                                                                                                                                                                                                                                                  |
| 5.2. | passages with workers present                              | 200                                                                            | Lighting at the floor level.                                                                                                                                                                                                                                                  |
| 5.3. | control points                                             | 200                                                                            |                                                                                                                                                                                                                                                                               |
| 6.   | Stock farming:                                             |                                                                                |                                                                                                                                                                                                                                                                               |
| 6.1. | loading, work with equipment and managing<br>of devices    | 200                                                                            |                                                                                                                                                                                                                                                                               |
| 6.2. | cattle-sheds and stables                                   | 50                                                                             |                                                                                                                                                                                                                                                                               |
| 6.3. | veterinary care rooms                                      | 200                                                                            |                                                                                                                                                                                                                                                                               |
| 6.4. | preparation of feed, milking and dish washing              | 200                                                                            |                                                                                                                                                                                                                                                                               |
| 7.   | Cement and concrete industry:                              |                                                                                |                                                                                                                                                                                                                                                                               |
| 7.1. | drying                                                     | 50                                                                             | Safety colours shall be easily<br>identifiable                                                                                                                                                                                                                                |
| 7.2. | preparation of materials, work with furnaces<br>and mixers | 200                                                                            |                                                                                                                                                                                                                                                                               |
| 7.3. | work with equipment, pouring of large moulds               | 300                                                                            |                                                                                                                                                                                                                                                                               |

| No.     | Workplace or type of work                                                                          | Em –<br>minimum level<br>of lighting<br>above the work<br>area<br>(lx – luxes) | Notes                                       |
|---------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------|
| 8.      | Ceramic and glass industry:                                                                        |                                                                                |                                             |
| 8.1.    | drying                                                                                             | 50                                                                             | Safety colours shall be easily identifiable |
| 8.2.    | preparation and work with equipment                                                                | 300                                                                            |                                             |
| 8.3.    | enamelling, rolling, pressing, formation of simple parts, glazing, glassblowing                    | 300                                                                            |                                             |
| 8.4.    | grinding, engraving, glass polishing, making of precise parts and preparation of glass instruments | 750                                                                            |                                             |
| 8.5.    | grinding of optical glass and crystal, manual grinding and engraving                               | 750                                                                            |                                             |
| 8.6.    | precise work, for example, decorative engraving and grinding, painting by hand                     | 1000                                                                           |                                             |
| 8.7.    | preparation of artificial precious stones                                                          | 1500                                                                           |                                             |
| 9.      | Manufacturing of chemical and plastic products and rubber:                                         |                                                                                |                                             |
| 9.1.    | automated device rooms free of workers                                                             | 50                                                                             | Safety colours shall be easily identifiable |
| 9.2.    | automated device rooms with workers present                                                        | 100                                                                            |                                             |
| 9.3.    | workplaces where manual work must be permanently performed                                         | 300                                                                            |                                             |
| 9.4.    | laboratories and rooms in which precise measurements are performed                                 | 500                                                                            |                                             |
| 9.5.    | production of pharmaceutical preparations                                                          | 500                                                                            |                                             |
| 9.6.    | production of tyres                                                                                | 500                                                                            |                                             |
| 9.7.    | colour testing                                                                                     | 1000                                                                           |                                             |
| 9.8.    | cutting, finishing and inspecting                                                                  | 750                                                                            |                                             |
| 10.     | Production of electricity:                                                                         |                                                                                |                                             |
| 10.1.   | production of wires and cables                                                                     | 300                                                                            |                                             |
| 10.2.   | windings – spools:                                                                                 |                                                                                |                                             |
| 10.2.1. | large                                                                                              | 300                                                                            |                                             |
| 10.2.2. | medium                                                                                             | 500                                                                            |                                             |
| 10.2.3. | small                                                                                              | 750                                                                            |                                             |
| 10.3.   | spool impregnation and tinning                                                                     | 300                                                                            |                                             |
| 10.4.   | assembly:                                                                                          |                                                                                |                                             |
| 10.4.1. | approximate (for example, large transformers)                                                      | 300                                                                            |                                             |
| 10.4.2. | medium (for example, control panels)                                                               | 500                                                                            |                                             |
| 10.4.3. | fine (for example, telephones)                                                                     | 750                                                                            |                                             |
| 10.4.4. | very fine (for example, precise assembly of equipment, measuring devices)                          | 1000                                                                           |                                             |
| 10.5.   | electronic workshops – inspection and regulation                                                   | 1500                                                                           |                                             |
| 11.     | Production of electricity:                                                                         |                                                                                |                                             |
| 11.1.   | fuel supply points                                                                                 | 50                                                                             | Safety colours shall be easily identifiable |
| 11.2.   | boiler rooms                                                                                       | 100                                                                            |                                             |
| 11.3.   | engine rooms                                                                                       | 200                                                                            |                                             |
| 11.4.   | auxiliary rooms (for example, pump, capacitor, control rooms)                                      | 200                                                                            |                                             |
| 11.5.   | control rooms                                                                                      | 500                                                                            |                                             |

| No.     | Workplace or type of work                                                                                     | Em –<br>minimum level<br>of lighting<br>above the work<br>area<br>(lx – luxes) | Notes |
|---------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------|
| 12.     | Production of food, drink and tobacco products:                                                               |                                                                                |       |
| 12.1.   | workplaces and areas for preparation of raw materials:                                                        | 200                                                                            |       |
| 12.1.2. | breweries, malt production, barrel filling, boiling, sifting, washing and skinning of products                |                                                                                |       |
| 12.1.3. | canning                                                                                                       |                                                                                |       |
| 12.1.4. | chocolate and sugar production                                                                                |                                                                                |       |
| 12.1.5. | tobacco cleaning, drying and preparation, fermentation cellars                                                |                                                                                |       |
| 12.2.   | initial sorting and product washing, grinding, mixing, packaging                                              | 300                                                                            |       |
| 12.3.   | workplaces and critical areas in slaughterhouses, in meat product and dairy product shops and filtering rooms | 500                                                                            |       |
| 12.4.   | sorting and crushing of fruits and vegetables                                                                 | 300                                                                            |       |
| 12.5.   | preparation and baking of confectionery and culinary products                                                 | 300                                                                            |       |
| 12.6.   | production, processing, decorating of confectionery and culinary products, kitchen work                       | 500                                                                            |       |
| 12.7.   | cigarette and cigar production                                                                                | 500                                                                            |       |
| 12.8.   | bottle and dish inspection, product inspection, decoration and sorting                                        | 500                                                                            |       |
| 12.9.   | laboratories                                                                                                  | 500                                                                            |       |
| 12.10.  | quality control                                                                                               | 1000                                                                           |       |
| 13.     | Metal industry:                                                                                               |                                                                                |       |
| 13.1.   | auxiliary tunnels and cellars                                                                                 | 50                                                                             |       |
| 13.2.   | platforms                                                                                                     | 100                                                                            |       |
| 13.3.   | sand preparation                                                                                              | 200                                                                            |       |
| 13.4.   | workplaces by cupolas and mixers, casting area, removal from the mould                                        | 200                                                                            |       |
| 13.5.   | mechanical preparation                                                                                        | 200                                                                            |       |
| 13.6.   | manual formation                                                                                              | 300                                                                            |       |
| 13.7.   | mixers, formation by machine, moulding machine                                                                | 200                                                                            |       |
| 13.8.   | preparation of moulds                                                                                         | 500                                                                            |       |
| 14.     | Production and processing of metals:                                                                          |                                                                                |       |
| 14.1.   | forging in an open mould                                                                                      | 200                                                                            |       |
| 14.2.   | forging with a press, welding                                                                                 | 300                                                                            |       |
| 14.3.   | work with heavy and medium heavy machinery (precision tolerance <sup>3</sup> 0,1 mm)                          | 300                                                                            |       |
| 14.4.   | precise works with equipment, grinding (precision tolerance < 0,1 mm)                                         | 500                                                                            |       |
| 14.5.   | designing and inspection                                                                                      | 750                                                                            |       |
| 14.6.   | work with tubes and wires                                                                                     | 300                                                                            |       |
| 14.7.   | processing of heavy tinplates (thickness <sup>3</sup> 5 mm)                                                   | 200                                                                            |       |
| 14.8.   | processing of light tinplates (thickness <sup>3</sup> 5 mm)                                                   | 300                                                                            |       |
| 14.9.   | tool-making                                                                                                   | 750                                                                            |       |

| No.      | Workplace or type of work                                                                        | Em – minimum level of lighting above the work area (lx – luxes) | Notes                                       |
|----------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------|
| 14.10.   | customisation, assembly:                                                                         |                                                                 |                                             |
| 14.10.1. | rough                                                                                            | 200                                                             |                                             |
| 14.10.2. | medium                                                                                           | 300                                                             |                                             |
| 14.10.3. | fine                                                                                             | 500                                                             |                                             |
| 14.10.4. | very fine                                                                                        | 750                                                             |                                             |
| 14.11.   | galvanisation                                                                                    | 300                                                             |                                             |
| 14.12.   | preparation and painting of surfaces                                                             | 750                                                             |                                             |
| 14.13.   | preparation of tools, moulds and matrices, thermal processing, processing of micromechanisms     | 1000                                                            |                                             |
| 15.      | Rolling and work with metals:                                                                    |                                                                 |                                             |
| 15.1.    | mechanical production site                                                                       | 50                                                              | Safety colours shall be easily identifiable |
| 15.2.    | production sites where manual activities are performed occasionally                              | 150                                                             |                                             |
| 15.3.    | production sites where manual activities are performed permanently                               | 200                                                             |                                             |
| 15.4.    | printing plate warehouses                                                                        | 50                                                              | Safety colours shall be easily identifiable |
| 15.5.    | furnace rooms                                                                                    | 200                                                             | Safety colours shall be easily identifiable |
| 15.6.    | rolling, winding and trimming                                                                    | 300                                                             |                                             |
| 15.7.    | platforms and control panels                                                                     | 300                                                             |                                             |
| 15.8.    | testing, measurements and assessments                                                            | 500                                                             |                                             |
| 15.9.    | crossings, hatches, cellars                                                                      | 50                                                              | Safety colours shall be easily identifiable |
| 16.      | Hairdressing and beauty salons                                                                   | 500                                                             |                                             |
| 17.      | Preparation of articles of jewellery, imitation jewellery and similar products:                  |                                                                 |                                             |
| 17.1.    | work with precious stones                                                                        | 1500                                                            |                                             |
| 17.2.    | Preparation of articles of jewellery and similar products                                        | 1000                                                            |                                             |
| 17.3.    | manufacture of watches by hand                                                                   | 1500                                                            |                                             |
| 17.4.    | automated manufacture of watches                                                                 | 500                                                             |                                             |
| 18.      | Laundries and dry-cleaning:                                                                      |                                                                 |                                             |
| 18.1.    | collection, labelling and sorting, washing, dry cleaning, ironing and pressing of clothes        | 300                                                             |                                             |
| 18.2.    | assessment and repair                                                                            | 750                                                             |                                             |
| 19.      | Production of leather and leather goods:                                                         |                                                                 |                                             |
| 19.1.    | work in warehouses, tanneries                                                                    | 200                                                             |                                             |
| 19.2.    | scraping, scrubbing, splitting, leathering and trimming of leather                               | 300                                                             |                                             |
| 19.3.    | manufacture of saddles, manufacture of shoes – cutting, holing, mould forming, sewing, polishing | 500                                                             |                                             |
| 19.4.    | sorting, mechanical leather dyeing                                                               | 500                                                             |                                             |
| 19.5.    | quality and colour inspection                                                                    | 1000                                                            |                                             |
| 19.6.    | manufacture of gloves and shoes                                                                  | 500                                                             |                                             |
| 20.      | Production of paper and paper products:                                                          |                                                                 |                                             |

| No.    | Workplace or type of work                                                                                                            | Em –<br>minimum level<br>of lighting<br>above the work<br>area<br>(lx – luxes) | Notes                       |
|--------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------|
| 20.1.  | wood pulp mill                                                                                                                       | 200                                                                            |                             |
| 20.2.  | production and processing of paper,<br>production of cardboard                                                                       | 300                                                                            |                             |
| 20.3.  | binding – folding, sorting, gluing, cutting,<br>engraving and sewing                                                                 | 500                                                                            |                             |
| 21.    | Polygraphy and ancillary activities related<br>thereto:                                                                              |                                                                                |                             |
| 21.1.  | cutting, gilding, printing, engraving,<br>electrochemical coating, work with printing<br>moulds, printing machines, template forming | 500                                                                            |                             |
| 21.2.  | paper sorting and manual printing                                                                                                    | 500                                                                            |                             |
| 21.3.  | typeface (letter) composition, retouching,<br>lithography                                                                            | 1000                                                                           |                             |
| 21.4.  | inspection of printing colours for coloured<br>works                                                                                 | 1500                                                                           |                             |
| 21.5.  | copper and steel engravings                                                                                                          | 2000                                                                           |                             |
| 22.    | Textile industry:                                                                                                                    |                                                                                |                             |
| 22.1.  | workplaces and areas by baths, bale opening<br>areas                                                                                 | 200                                                                            |                             |
| 22.2.  | washing, carding, combing, ironing, plucking,<br>drawing, sorting by sizes, styling, pre-<br>spinning, jute and hemp spinning        | 300                                                                            |                             |
| 22.3.  | spinning, winding, twisting, wreathing,<br>weaving, knitting, braiding, reeling                                                      | 500                                                                            | Prevent stroboscopic effect |
| 22.4.  | sewing, knitting by hand, stitching                                                                                                  | 750                                                                            | Prevent stroboscopic effect |
| 22.5.  | preparation of projects by hand and drawing<br>of dress patterns                                                                     | 750                                                                            |                             |
| 22.6.  | finishing, painting, automated printing of<br>fabrics                                                                                | 500                                                                            |                             |
| 22.7.  | drying cabinet                                                                                                                       | 100                                                                            |                             |
| 22.8.  | macramé, adorning and restoring                                                                                                      | 1000                                                                           |                             |
| 22.9.  | colour inspection, production control                                                                                                | 1000                                                                           |                             |
| 22.10. | very accurate fabric repair work                                                                                                     | 1500                                                                           |                             |
| 22.11. | hat manufacturing                                                                                                                    | 500                                                                            |                             |
| 23.    | Production of the vehicles:                                                                                                          |                                                                                |                             |
| 23.1.  | production and assembly of bodywork                                                                                                  | 500                                                                            |                             |
| 23.2.  | painting, painting cabins, buffing cabins                                                                                            | 750                                                                            |                             |
| 23.3.  | colouring – retouching, inspection                                                                                                   | 1000                                                                           |                             |
| 23.4.  | production of upholstery                                                                                                             | 1000                                                                           |                             |
| 23.5.  | final inspection                                                                                                                     | 1000                                                                           |                             |

| No.   | Workplace or type of work                                                                      | Em –<br>minimum level<br>of lighting<br>above the work<br>area<br>(lx – luxes) | Notes                                                                                                                                                  |
|-------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 24.   | Production of wood and wood products:                                                          |                                                                                |                                                                                                                                                        |
| 24.1. | automated device rooms usually free of workers                                                 | 50                                                                             |                                                                                                                                                        |
| 24.2. | steam treatment                                                                                | 150                                                                            |                                                                                                                                                        |
| 24.3. | band saw (saw-mill)                                                                            | 300                                                                            | Prevent stroboscopic effect                                                                                                                            |
| 24.4. | work at workbench, assembly and gluing                                                         | 300                                                                            |                                                                                                                                                        |
| 24.5. | polishing, varnishing, painting, decorative joinery work                                       | 750                                                                            |                                                                                                                                                        |
| 24.6. | mechanised wood processing work – turning, planing, cutting, filing, grooving, milling, sawing | 500                                                                            | Prevent stroboscopic effect                                                                                                                            |
| 24.7. | selection of finishing materials                                                               | 750                                                                            |                                                                                                                                                        |
| 24.8. | joinery and inlaying work in wood                                                              | 750                                                                            |                                                                                                                                                        |
| 24.9. | quality control                                                                                | 1000                                                                           |                                                                                                                                                        |
| 25.   | Offices:                                                                                       |                                                                                |                                                                                                                                                        |
| 25.1. | document filing, copying                                                                       | 300                                                                            |                                                                                                                                                        |
| 25.2. | reading, writing, typewriting, data processing                                                 | 500                                                                            |                                                                                                                                                        |
| 25.3. | technical drawing (work at a drafting table)                                                   | 750                                                                            |                                                                                                                                                        |
| 25.4. | computer-assisted design workplaces                                                            | 500                                                                            |                                                                                                                                                        |
| 25.5. | meeting, conference rooms                                                                      | 500                                                                            | Lighting must be adjustable                                                                                                                            |
| 25.6. | client reception areas, receptions                                                             | 300                                                                            |                                                                                                                                                        |
| 25.7. | warehouses, archive rooms                                                                      | 200                                                                            |                                                                                                                                                        |
| 26.   | Retail trade:                                                                                  |                                                                                |                                                                                                                                                        |
| 26.1. | trading areas                                                                                  | 300                                                                            |                                                                                                                                                        |
| 26.2. | cashier workstations, wrapping table                                                           | 500                                                                            |                                                                                                                                                        |
| 27.   | Public exhibitions:                                                                            |                                                                                |                                                                                                                                                        |
| 27.1. | entrance halls                                                                                 | 100                                                                            |                                                                                                                                                        |
| 27.2. | cloakrooms, rest rooms                                                                         | 200                                                                            |                                                                                                                                                        |
| 27.3. | ticket offices                                                                                 | 300                                                                            |                                                                                                                                                        |
| 28.   | Hotels, restaurants and catering facilities:                                                   |                                                                                |                                                                                                                                                        |
| 28.1. | client registration areas                                                                      | 300                                                                            |                                                                                                                                                        |
| 28.2. | kitchens                                                                                       | 500                                                                            | There must be a transition area between the kitchen and the restaurant                                                                                 |
| 28.3. | restaurants, dining rooms                                                                      | 300                                                                            | Lighting shall be designed in order to create a suitable atmosphere                                                                                    |
| 28.4. | self-service restaurants                                                                       | 200                                                                            |                                                                                                                                                        |
| 28.5. | bars                                                                                           | 300                                                                            |                                                                                                                                                        |
| 28.6. | conference rooms                                                                               | 500                                                                            | Lighting must be adjustable                                                                                                                            |
| 28.7. | corridors, hallways                                                                            | 100                                                                            | At night the lighting may be lower                                                                                                                     |
| 29.   | Theatres, concert halls, cinemas:                                                              |                                                                                |                                                                                                                                                        |
| 29.1. | rehearsal rooms, changing rooms                                                                | 300                                                                            | The lighting used on mirrors for the application of cosmetics should be glare-free                                                                     |
| 30.   | Exhibition halls:                                                                              |                                                                                |                                                                                                                                                        |
| 30.1. | general lighting                                                                               | 300                                                                            |                                                                                                                                                        |
| 31.   | Museums:                                                                                       |                                                                                |                                                                                                                                                        |
| 31.1. | exhibits not affected by light                                                                 |                                                                                | The level of lighting shall be determined in accordance with the exhibition requirements. Protection against optical radiation is especially important |
| 31.2. | light-sensitive exhibits                                                                       |                                                                                |                                                                                                                                                        |

| No.    | Workplace or type of work                                                                              | Em –<br>minimum level<br>of lighting<br>above the work<br>area<br>(lx – luxes) | Notes                                                                                                                                                                                  |
|--------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 32.    | Libraries:                                                                                             |                                                                                |                                                                                                                                                                                        |
| 32.1.  | book storage points, shelves                                                                           | 200                                                                            | The level of lighting shall be determined in accordance with the exhibition requirements. Protection against optical radiation is especially important                                 |
| 32.2.  | workstation of the librarian, reading rooms                                                            | 500                                                                            |                                                                                                                                                                                        |
| 33.    | Underground or closed car parks:                                                                       |                                                                                |                                                                                                                                                                                        |
| 33.1.  | entry/exit routes in a car park during the day                                                         | 300                                                                            | 1. Lighting at floor level.<br>2. Safety colours should be easily identifiable<br>3. High vertical lighting increases the recognition of human faces and wherewith the sense of safety |
| 33.2.  | territory of car parks (entry/exit routes in a car park during the night, traffic zones, parking-lots) | 75                                                                             |                                                                                                                                                                                        |
| 33.3.  | passes, pay offices                                                                                    | 300                                                                            | 1. Avoid reflections in windows.<br>2. Prevent glare which might come from outside                                                                                                     |
| 34.    | Educational establishments:                                                                            |                                                                                |                                                                                                                                                                                        |
| 34.1.  | kindergartens, children's day centres                                                                  | 300                                                                            |                                                                                                                                                                                        |
| 34.2.  | game rooms, children's rooms, handicraft rooms                                                         | 300                                                                            |                                                                                                                                                                                        |
| 34.3.  | classrooms                                                                                             | 300                                                                            | Lighting at table surface level. Lighting should be adjustable                                                                                                                         |
| 34.4.  | classrooms or evening schooles, adult educational establishment                                        | 500                                                                            | Lighting should be adjustable                                                                                                                                                          |
| 34.5.  | lecture rooms, auditoriums                                                                             | 500                                                                            | Lighting should be adjustable                                                                                                                                                          |
| 34.6.  | blackboard areas, demonstration tables, tables for display materials                                   | 500                                                                            | In lecture rooms and auditoriums lighting should be 750 lx                                                                                                                             |
| 34.7.  | drawing, art rooms                                                                                     | 500                                                                            |                                                                                                                                                                                        |
| 34.8.  | drawing and art rooms in art schools, technical drawing rooms                                          | 750                                                                            |                                                                                                                                                                                        |
| 34.9.  | practical instruction rooms and laboratories                                                           | 500                                                                            |                                                                                                                                                                                        |
| 34.10. | handiwork rooms, technical work rooms, training workshops                                              | 500                                                                            |                                                                                                                                                                                        |
| 34.11. | music instruction rooms                                                                                | 300                                                                            |                                                                                                                                                                                        |
| 34.12. | computer training rooms                                                                                | 300                                                                            |                                                                                                                                                                                        |
| 34.13. | language teaching rooms                                                                                | 300                                                                            |                                                                                                                                                                                        |
| 34.14. | practical work rooms and workshops                                                                     | 500                                                                            |                                                                                                                                                                                        |
| 34.15. | entrance halls                                                                                         | 200                                                                            |                                                                                                                                                                                        |
| 34.16. | corridors, vestibules, hallways                                                                        | 100                                                                            |                                                                                                                                                                                        |
| 34.17. | stairs                                                                                                 | 150                                                                            |                                                                                                                                                                                        |
| 34.18. | shared-use facilities of pupils or students and assembly halls                                         | 200                                                                            | Lighting at floor level.                                                                                                                                                               |
| 34.19. | teacher and trainer rooms                                                                              | 300                                                                            |                                                                                                                                                                                        |
| 34.20. | library rooms housing bookshelves                                                                      | 200                                                                            |                                                                                                                                                                                        |
| 34.21. | library reading rooms                                                                                  | 500                                                                            |                                                                                                                                                                                        |
| 34.22. | teaching material storage sites, accommodation                                                         | 100                                                                            |                                                                                                                                                                                        |
| 34.23. | sports halls, gyms, swimming pools                                                                     | 300                                                                            | Lighting at floor level.                                                                                                                                                               |
| 34.24. | school canteens                                                                                        | 200                                                                            |                                                                                                                                                                                        |
| 34.25. | kitchens                                                                                               | 500                                                                            |                                                                                                                                                                                        |

| No.      | Workplace or type of work                                  | Em –<br>minimum level<br>of lighting<br>above the work<br>area<br>(lx – luxes) | Notes                                                                        |
|----------|------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 35.      | Health care institutions:                                  |                                                                                |                                                                              |
| 35.1.    | general rooms:                                             |                                                                                | All lighting at floor level                                                  |
| 35.1.1.  | waiting rooms                                              | 200                                                                            |                                                                              |
| 35.1.2.  | corridors, hallways (during daytime)                       | 200                                                                            |                                                                              |
| 35.1.3.  | corridors, hallways (during night-time)                    | 50                                                                             |                                                                              |
| 35.1.4.  | day rooms                                                  | 200                                                                            |                                                                              |
| 35.2.    | rooms for employees:                                       |                                                                                |                                                                              |
| 35.2.1.  | rooms for doctors or nurses                                | 500                                                                            |                                                                              |
| 35.2.2.  | staff rooms                                                | 300                                                                            |                                                                              |
| 35.3.    | wards, maternity wards:                                    |                                                                                | Avoid excessively intense lighting<br>within the field of vision of patients |
| 35.3.1.  | general lighting                                           | 100                                                                            | Lighting at floor level.                                                     |
| 35.3.2.  | lighting for reading                                       | 300                                                                            |                                                                              |
| 35.3.3.  | simple examinations, examinations and<br>investigations    | 300                                                                            |                                                                              |
| 35.3.4.  | examinations, investigations and treatment                 | 1000                                                                           |                                                                              |
| 35.3.5.  | night lighting, observation lighting                       | 5                                                                              |                                                                              |
| 35.3.6.  | patient bathrooms and lavatories                           | 200                                                                            |                                                                              |
| 35.4.    | examination rooms:                                         |                                                                                |                                                                              |
| 35.4.1.  | general lighting                                           | 500                                                                            |                                                                              |
| 35.4.2.  | examinations and treatment                                 | 1000                                                                           |                                                                              |
| 35.5.    | eye examination rooms:                                     |                                                                                |                                                                              |
| 35.5.1.  | general lighting                                           | 300                                                                            |                                                                              |
| 35.5.2.  | external eye examination/checkup                           | 1000                                                                           |                                                                              |
| 35.5.3.  | reading and colour vision tests with vision<br>cards       | 500                                                                            |                                                                              |
| 35.6.    | ear examination rooms:                                     |                                                                                |                                                                              |
| 35.6.1.  | general lighting                                           | 300                                                                            |                                                                              |
| 35.6.2.  | ear examination                                            | 1000                                                                           |                                                                              |
| 35.7.    | scanner rooms:                                             |                                                                                |                                                                              |
| 35.7.1.  | general lighting                                           | 300                                                                            |                                                                              |
| 35.7.2.  | scanners with image intensifiers and television<br>systems | 50                                                                             |                                                                              |
| 35.8.    | delivery rooms:                                            |                                                                                |                                                                              |
| 35.8.1.  | general lighting                                           | 300                                                                            |                                                                              |
| 35.8.2.  | examination and treatment                                  | 1000                                                                           |                                                                              |
| 35.9.    | treatment rooms:                                           |                                                                                |                                                                              |
| 35.9.1.  | dialysis room                                              | 500                                                                            | Lighting should be adjustable                                                |
| 35.9.2.  | dermatology room                                           | 500                                                                            |                                                                              |
| 35.9.3.  | endoscopy                                                  | 300                                                                            |                                                                              |
| 35.9.4.  | trussing                                                   | 500                                                                            |                                                                              |
| 35.9.5.  | physiotherapy (including remedial baths,<br>massages)      | 300                                                                            |                                                                              |
| 35.9.6.  | radiotherapy rooms                                         | 300                                                                            |                                                                              |
| 35.10.   | operation rooms:                                           |                                                                                |                                                                              |
| 35.10.1. | pre-operation and post-operation rooms                     | 500                                                                            |                                                                              |
| 35.10.2. | operating theatres                                         | 1000                                                                           |                                                                              |
| 35.10.3. | lighting angled towards the site of operation              |                                                                                | 10 000-100 000 lx                                                            |

| No.      | Workplace or type of work                                                    | Em – minimum level of lighting above the work area (lx – luxes) | Notes                                                                                               |
|----------|------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 35.11.   | intensive therapy rooms:                                                     |                                                                 |                                                                                                     |
| 35.11.1. | general lighting                                                             | 100                                                             | Lighting at floor level.                                                                            |
| 35.11.2. | simple examinations and investigations                                       | 300                                                             | Lighting at bed level                                                                               |
| 35.11.3. | examinations, investigations and treatment                                   | 1000                                                            | Lighting at bed level                                                                               |
| 35.11.4. | night watch, night duty light                                                | 20                                                              |                                                                                                     |
| 35.12.   | dental practice rooms:                                                       |                                                                 |                                                                                                     |
| 35.12.1. | general lighting                                                             | 500                                                             |                                                                                                     |
| 35.12.2. | lighting directly above the patient                                          | 1000                                                            | Lighting should be glare-free for patient                                                           |
| 35.12.3. | lighting angled towards the oral cavity, dental hygiene and dental bleaching | 5000                                                            |                                                                                                     |
| 35.13.   | laboratories and pharmacies:                                                 |                                                                 |                                                                                                     |
| 35.13.1. | general lighting                                                             | 500                                                             |                                                                                                     |
| 35.13.2. | colour testing                                                               | 1000                                                            |                                                                                                     |
| 35.14.   | sterilisation and disinfection rooms                                         | 300                                                             |                                                                                                     |
| 35.15.   | autopsy rooms and morgues:                                                   |                                                                 |                                                                                                     |
| 35.15.1. | general lighting                                                             | 500                                                             |                                                                                                     |
| 35.15.2. | autopsy table and dissection table                                           | 5000                                                            |                                                                                                     |
| 36.      | Transportation areas:                                                        |                                                                 |                                                                                                     |
| 36.1.    | airports:                                                                    |                                                                 |                                                                                                     |
| 36.1.1.  | departure and arrival halls, baggage reclamation areas                       | 200                                                             |                                                                                                     |
| 36.1.2.  | connection areas, transfer areas, escalators, conveyer belts                 | 150                                                             |                                                                                                     |
| 36.1.3.  | information, reception                                                       | 500                                                             |                                                                                                     |
| 36.1.4.  | customs and passport control                                                 | 500                                                             | Vertical lighting is important                                                                      |
| 36.1.5.  | waiting areas, baggage storage rooms                                         | 200                                                             |                                                                                                     |
| 36.1.6.  | security inspection areas                                                    | 300                                                             |                                                                                                     |
| 36.1.7.  | air traffic control towers                                                   | 500                                                             | 1. Lighting should be adjustable<br>2. Avoid glare of daylight.<br>3. Avoid reflections in windows. |
| 36.1.8.  | inspections and refitting, repair hangars engine inspection areas            | 500                                                             |                                                                                                     |
| 36.1.9.  | measurement areas in hangars                                                 | 500                                                             |                                                                                                     |
| 36.2.    | railway stations:                                                            |                                                                 |                                                                                                     |
| 36.2.1.  | covered platforms, platforms and passenger tunnels                           | 50                                                              |                                                                                                     |
| 36.2.2.  | ticket sale halls                                                            | 200                                                             |                                                                                                     |
| 36.2.3.  | ticket offices, baggage rooms and counters                                   | 300                                                             |                                                                                                     |
| 36.2.4.  | waiting rooms                                                                | 200                                                             |                                                                                                     |

Note.

\* The level of lighting in a workstation may be higher, but the lighting shall not create the risk of accident, including an increased strain of vision and dazzling.

Minister of Welfare

U. Augulis

### Levels of Outdoor Lighting Depending on the Workplace and Type of Work\*

| No.  | Workplace or type of work                                                                          | Em – minimum level of lighting in the work area (lx – luxes) | Notes                                                                                                                                                                                                  |
|------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.   | Outdoor movement areas in workplaces:                                                              |                                                              |                                                                                                                                                                                                        |
| 1.1. | paths intended for pedestrian movement only                                                        | 5                                                            | No workplace                                                                                                                                                                                           |
| 1.2. | traffic areas for slowly moving vehicles (max. 10km/h), for example, bicycles, lorries, excavators | 10                                                           |                                                                                                                                                                                                        |
| 1.3. | permanent traffic of vehicles (max. 40 km/h)                                                       | 20                                                           |                                                                                                                                                                                                        |
| 1.4. | pedestrian crossings, turning, loading and unloading points for vehicles                           | 50                                                           |                                                                                                                                                                                                        |
| 2.   | Airports:                                                                                          |                                                              | 1. Direct light in the direction of control towers and aeroplane landing should be avoided.<br>2. Direct light transmitted from projectors above the horizontal line should be reduced to the minimum. |
| 2.1. | hangar areas                                                                                       | 20                                                           |                                                                                                                                                                                                        |
| 2.2. | terminal areas                                                                                     | 30                                                           |                                                                                                                                                                                                        |
| 2.3. | loading areas                                                                                      | 50                                                           |                                                                                                                                                                                                        |
| 2.4. | fuel storage facilities                                                                            | 50                                                           |                                                                                                                                                                                                        |
| 2.5. | aircraft technical maintenance sites                                                               | 200                                                          |                                                                                                                                                                                                        |
| 3.   | Building sites:                                                                                    |                                                              |                                                                                                                                                                                                        |
| 3.1. | preparation of building sites and trenches                                                         | 20                                                           |                                                                                                                                                                                                        |
| 3.2. | construction work areas, mounting of pipelines, consignments, ancillary work and warehouse work    | 50                                                           |                                                                                                                                                                                                        |
| 3.3. | assembly of framework, fixtures and wooden elements, installation of electric wires and cables     | 100                                                          |                                                                                                                                                                                                        |
| 3.4. | connection of elements, assembly of electric mechanisms and pipelines                              | 200                                                          |                                                                                                                                                                                                        |
| 4.   | Shipping:                                                                                          |                                                              |                                                                                                                                                                                                        |
| 4.1. | ship moorings at canals and sluices                                                                | 10                                                           |                                                                                                                                                                                                        |
| 4.2. | pedestrian passageways                                                                             | 10                                                           |                                                                                                                                                                                                        |
| 4.3. | sluice control and ballast areas                                                                   | 20                                                           |                                                                                                                                                                                                        |
| 4.4. | transfer, loading and unloading of cargoes                                                         | 30                                                           | Safety signs should be easily identifiable (Em = 50 lx)                                                                                                                                                |
| 4.5. | passenger areas in passenger ports, the hazardous section of pedestrian routes and access roads    | 50                                                           |                                                                                                                                                                                                        |
| 4.6. | connection of hoses, pipelines and mooring                                                         | 50                                                           |                                                                                                                                                                                                        |
| 5.   | Shipbuilding and docks                                                                             |                                                              |                                                                                                                                                                                                        |
| 5.1. | general lighting of shipbuilding areas, areas for storage of industrial products                   | 20                                                           |                                                                                                                                                                                                        |
| 5.2. | temporary movement of large units                                                                  | 20                                                           |                                                                                                                                                                                                        |
| 5.3. | cleaning of the hull of a vessel                                                                   | 50                                                           |                                                                                                                                                                                                        |
| 5.4. | painting and welding of the hull of a vessel                                                       | 100                                                          |                                                                                                                                                                                                        |
| 5.5. | assembly of electromechanical details                                                              | 200                                                          |                                                                                                                                                                                                        |

| No.   | Workplace or type of work                                                                                                                                                                      | Em – minimum level of lighting in the work area (lx – luxes) | Notes                                        |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------|
| 6.    | Agriculture (livestock farming):                                                                                                                                                               |                                                              |                                              |
| 6.1.  | farmyard                                                                                                                                                                                       | 20                                                           |                                              |
| 6.2.  | open shed for equipment                                                                                                                                                                        | 50                                                           |                                              |
| 6.3.  | animal sorting pen                                                                                                                                                                             | 50                                                           |                                              |
| 7.    | Filling stations:                                                                                                                                                                              |                                                              |                                              |
| 7.1.  | parking spaces                                                                                                                                                                                 | 5                                                            |                                              |
| 7.2.  | entrance and exit access roads in rural regions and city suburbs (dark surroundings)                                                                                                           | 20                                                           |                                              |
| 7.3.  | entrance and exit access roads in cities (light surroundings)                                                                                                                                  | 50                                                           |                                              |
| 7.4.  | air pressure, water control points and other service areas                                                                                                                                     | 150                                                          |                                              |
| 7.5.  | control rooms and rooms for control measuring devices                                                                                                                                          | 150                                                          |                                              |
| 8.    | Car parks:                                                                                                                                                                                     |                                                              |                                              |
| 8.1.  | low intensity traffic (for example, car park areas of residential and private houses), bicycle parks                                                                                           | 5                                                            |                                              |
| 8.2.  | medium intensity traffic (for example, by office buildings, undertakings)                                                                                                                      | 10                                                           |                                              |
| 8.3.  | high intensity traffic (for example, by large trade centres)                                                                                                                                   | 20                                                           |                                              |
| 9.    | Production sites, storage and warehouse territories:                                                                                                                                           |                                                              |                                              |
| 9.1.  | temporary movement of large objects and raw materials, loading and unloading of large-scale cargo                                                                                              | 20                                                           |                                              |
| 9.2.  | continuous movement of large objects and raw materials, loading and unloading of cargo, zone of crane operation                                                                                | 50                                                           |                                              |
| 9.3.  | work beneath closed platforms                                                                                                                                                                  | 100                                                          |                                              |
| 9.4.  | inspection of electro-installations, mechanisms and pipelines                                                                                                                                  | 200                                                          | Use local lighting                           |
| 10.   | Production of refined petroleum products, chemical substances and products and other hazardous sectors:                                                                                        |                                                              |                                              |
| 10.1. | performance of servicing and maintenance works                                                                                                                                                 | 20                                                           |                                              |
| 10.2. | loading and unloading of dangerous substances and products into/from container transport vehicles and wagons, exchange of pump gaskets, general servicing work, reading of measuring equipment | 100                                                          |                                              |
| 10.3. | loading and unloading of other chemical substances and products into/from container transport vehicles and wagons, test for leaks, placement and packing of pipelines                          | 50                                                           |                                              |
| 10.4. | fuel loading and unloading sites                                                                                                                                                               | 100                                                          |                                              |
| 10.5. | repair of work equipment and electric installations                                                                                                                                            | 200                                                          |                                              |
| 11.   | Electricity, gas and heating production undertakings:                                                                                                                                          |                                                              |                                              |
| 11.1. | pedestrian movement in electrically safe areas                                                                                                                                                 | 5                                                            |                                              |
| 11.2. | movement of servicing tools, coal                                                                                                                                                              | 20                                                           |                                              |
| 11.3. | supervision                                                                                                                                                                                    | 50                                                           |                                              |
| 11.4. | general servicing work, servicing and maintenance of wind tunnels, outdoor control measuring device areas                                                                                      | 100                                                          | Safety colours should be easily identifiable |
| 11.5. | repair of electrical devices                                                                                                                                                                   | 200                                                          | Use local lighting                           |

| No.   | Workplace or type of work                                                                                                                                                    | Em – minimum level of lighting in the work area (lx – luxes) | Notes |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-------|
| 12.   | Processing of timber:                                                                                                                                                        |                                                              |       |
| 12.1. | transfer of timber by land and by water, transport of sawdust and chips                                                                                                      | 20                                                           |       |
| 12.2. | sorting of timber on land or on water, sites for unloading of timber and sites for loading of sawn timber, mechanical lifting onto a timber conveyer belt, loading in a pile | 50                                                           |       |
| 12.3. | reading of sawn timber labelling                                                                                                                                             | 100                                                          |       |
| 12.4. | sorting and packing                                                                                                                                                          | 200                                                          |       |
| 12.5. | feeding to saws and grinding mills                                                                                                                                           | 300                                                          |       |
| 13.   | Water management and purification undertakings:                                                                                                                              |                                                              |       |
| 13.1. | use of servicing and maintenance tools, use of hand-operated valves, starting and stopping of engines, packing of pipelines and raking of plants                             | 50                                                           |       |
| 13.2. | use of chemical substances and products, test for leaks, change of pumps, general maintenance work, reading of measuring device readings                                     | 100                                                          |       |
| 13.3. | repair of engines and electric devices                                                                                                                                       | 200                                                          |       |

Note.

\* The level of lighting in a workstation may be higher, but the lighting shall not create the risk of accident, including an increased strain of vision and dazzling.

Minister of Welfare

U. Augulis

## Permissible Period of Time for Work Outdoors in the Cold and the Temperature Adjustment Table

### I. Permissible Period of Time for Work Outdoors in the Cold

| No. | Actual air temperature*<br>(C°) | Maximum continuous exposure to the cold<br>(min) | Minimum rest period in minutes<br>(min) |
|-----|---------------------------------|--------------------------------------------------|-----------------------------------------|
| 1.  | from – 5 to – 10                | 90                                               | 15                                      |
| 2.  | from –10 to – 18                | 80                                               | 20                                      |
| 3.  | from – 18 to – 30               | 70                                               | 25                                      |
| 4.  | Below – 30                      | 60                                               | 30                                      |

Note.

\* When determining the actual air temperature, the influence of personal protective devices (work clothes and shoes) and wind velocity shall be taken into account.

### II. Temperature Adjustment Table Depending on the Wind Velocity

| No. | Wind velocity<br>m/sec | Air temperature outdoors (°C) |      |      |      |      |      |      |
|-----|------------------------|-------------------------------|------|------|------|------|------|------|
|     |                        | 0                             | – 5  | – 10 | – 15 | – 20 | – 25 | – 30 |
|     |                        | Actual temperature (°C)       |      |      |      |      |      |      |
| 1.  | 1,8                    | 0                             | – 5  | – 10 | – 15 | – 20 | – 25 | – 30 |
| 2.  | 2                      | – 1                           | – 6  | – 11 | – 16 | – 21 | – 27 | – 32 |
| 3.  | 3                      | – 4                           | – 10 | – 15 | – 21 | – 27 | – 32 | – 38 |
| 4.  | 5                      | – 9                           | – 15 | – 21 | – 28 | – 34 | – 40 | – 47 |
| 5.  | 8                      | – 13                          | – 20 | – 27 | – 34 | – 41 | – 48 | – 55 |
| 6.  | 11                     | – 16                          | – 23 | – 31 | – 38 | – 46 | – 53 | – 60 |
| 7.  | 15                     | – 18                          | – 26 | – 34 | – 42 | – 49 | – 57 | – 65 |

Minister of Welfare

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