BASIC LEGISLATION

EMPLOYEES' DUTIES

Every employee has to:

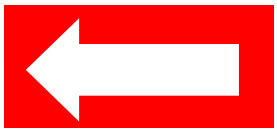
- **attend OHS training courses** and undergo an examination of his/her knowledge;
- **undergo occupational health examinations** (occupational health services are **exempt from the free choice of a physician**) and examinations and vaccinations determined by legal regulations;
- **observe** the legal and other **regulations and instructions** of the employer for the assurance of OHS;
- **abide by the principles** of safe behaviour in workplaces and information on OHS;
- **observe** determined **working procedures**, use determined means of working, vehicles, personal protective equipment, and protective devices, and avoid wilfully replacing them or putting them out of operation;
- **avoid using alcoholic beverages** and **using** other **habit-forming substances** in the workplace and even outside the workplace during working hours, and avoid entering the workplace under their influence;
- **avoid smoking** in workplaces where non-smokers also work;
- **report defects and deficiencies** to his/her superiors in workplaces;
- **report immediately job-related injuries** and injuries to other persons which he/she witnessed to his/her superiors, provided he/she can do so considering his/her health state, and cooperate during the investigation of the causes of the injuries;
- **undergo**, under the direction of a supervisor authorised in writing by the employer, **an examination** for the influence of alcohol or other habit-forming substances.

SAFETY MARKINGS

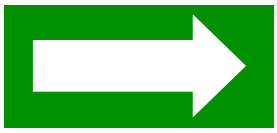
Safety markings, together with light and audio signals, belong among the most effective weapons of hazard prevention. Let's see the basic meanings of colours.

WARNING	PROHIBITION	SAFETY	ORDER
be careful get ready verify	dangerous behaviour signal to stop + MARKING OF FIRE-FIGHTING DEVICES	emergency ways and exits first aid signal for free way	ordered behaviour use of personal protective equipment

PAY ATTENTION to the fundamental difference in meaning of arrows on green and red signs.



DIRECTION OF FIRE-FIGHTING DEVICES



DIRECTION OF ESCAPE

ELECTRICAL APPLIANCES

HAZARDS

- injury by electric current
- probability of occurrence of fire or burns
- mechanical hazard (e.g. rotating parts)
- radiation and chemical hazard
- radiation, leaking gases, explosions

OPERATION

- check the appliance in question every time before it is used;
- operate the appliance in accordance with its operating instructions or guide;
- electrical appliances must always be plugged into the electrical network with their switch in the 'off' position;
- observe the minimum distances prescribed in the instructions accompanying the appliance for distances from flammable matter;
- protect electrical appliances against water and mechanical damage; they must not be used in damp or explosive environments;
- when an appliance is being removed, it must always be disconnected from the network;
- do not move or lift appliances by their supply cables.

CHECKS ON APPLIANCES

- Air holes must not be coated with dust or covered!
- Covers, holders, control elements etc. must not be damaged!
- Control and safety elements must not be damaged and must fulfil their functions!
- Loose supply cables, including extension cords, must not have damaged, rotten, or excessively hard insulation!
- Plugs and sockets must not be damaged!

MANUAL HANDLING OF LOADS

HAZARDS

Almost 50% of problems with the handling of loads are related to the back! 60% of the population has problems with their backs; 30% of them are chronic!

The most frequent causes of injuries that occur in connection with handling loads are sudden jerky movements, incorrect posture, and movements that are repeated in the long term! The greatest hazards are posed by heavy, large, hard-to-hold, unbalanced, and hard-to-reach loads!

People suffering from obesity, older people, pregnant women, and convalescents after an injury or disease are particularly predisposed to damage to their health as a consequence of the handling of loads!

WEIGHT LIMITS

Weight limits for the manual handling of loads for men and women.

Men		**Women**	
Max. 50 kg	- occasional lifting and carrying	Max. 20 kg	- occasional lifting and carrying
Max. 30 kg	- frequent lifting and carrying	Max. 15 kg	- frequent lifting and carrying
Max. 5 kg	- handling in a sitting position	Max. 3 kg	- handling in a sitting position
Max. 10 000 kg	- during an eight-hour shift	Max. 6 500 kg	- during an eight-hour shift

Occasional lifting and carrying
Interrupted lifting and carrying not exceeding 30 minutes overall during an 8-hour shift.

Frequent lifting and carrying
Lifting and carrying exceeding 30 minutes overall during an 8-hour shift.

PRINCIPLES OF CORRECT HANDLING

Think!
Where should the load be transferred?
How heavy is it? Do I need help!
Can I use any aids (e.g. a cart)?
Are there any obstacles on the way that I could remove first?

Assume a stable position!
Having your legs slightly apart gives you a stable base for lifting.
Be careful about close-fitting clothes and unsuitable shoes.

When lifting...
Hold the load firmly and bend slightly over the load.
Keep your back straight when lifting the load. It helps to lift your chin up.

Turn with your legs...
Work with your legs, not with your body, especially when your back is bent!
Your shoulders should be in line with your hips when you are turning your body or lifting a load.

Carrying loads...
Carry loads with the heavier side closer to your body.
Keep your head up; do not bend forward!

Lay the load down...
If precise positioning of the load is necessary, you should lay the load down first and then move or adjust it into the correct position.

WORKING WITH COMPUTERS

HAZARDS

- Headaches and sore eyes caused by long-lasting viewing of a monitor.
- Stress. Performing several tasks at a time, concentration disturbed by incoming
- e-mails etc.
- RSI (Repetitive Strain Injury) troubles connected with small repeated moves – carpal tunnel syndrome, tendonitis, tennis elbow etc.
- Pain in neck and cervical vertebrae as a result of incorrect positioning of a monitor.
- Back pains caused by an incorrect working position.

ERGONOMICS

Adjust your ergonomic workplace.

Monitor	Eliminate the reflection of sources of light (lighting units, windows). Minimum distance from eyes 40 cm. The upper line should not be higher than on the level of your eyes. Place it directly in front of you, not to the sides! Clean it regularly.
Table top, keyboard, and mouse	Elbows approximately on the level of the table top. Place the keyboard directly in front of you and the mouse as close to it as possible. Other things that you use often should be easily reachable.
Chair	Support your lower spine with a rest. Elbows and knees should form an angle a little bit larger than 90o. Have your elbows supported with armrests.
Position of feet	Your soles should touch the floor or mat fully.

Take a short break with brief stretching exercises every 60 minutes.

WOMEN'S WORK

Special working conditions of women are regulated within Sections 238 to 242 of the Labour Code. Pregnant women, nursing mothers, and mothers up to the ninth month after birth must not carry tasks specified in Decree no. 180/2015 Coll., on Forbidden works and workplaces.

The above mentioned women must not carry out particularly the tasks that are:

- hazardous
- carried out in the heights above 1.5 m
- with a risk of falling objects
- with high-voltage devices
- in closed tanks and vessels
- physically demanding
- in an imposed work pace
- connected with strokes and vibrations
- connected with exposition to chemicals and dust
- connected with manual handling of loads weighing over:
  - **10 kg** – applies for occasional handling
  - **5 kg** – applies for frequent handling
  - **2 kg** – applies for frequent handling when sitting

You can find a detailed list in the Decree no. 180/2015 Coll.

FIREFIGHTING PRINCIPLES

The principle of fires and subsequent firefighting is simple. Three basic elements have to be present for a fire to start. Taking any of the elements away may, on the contrary, cause its extinguishing.

You have to be aware of the fact that a fire is defined as any burning in which people or animals were injured or killed or property was damaged. A fire is any unwanted burning which immediately endangers people, animals, valuable property or the environment.

Firefighting – How to do it?

The first firefighting measure in buildings that are not equipped with sprinklers may be carried out with accessible firefighting means (fire extinguishers and fire hydrant mains). If you decide to start firefighting, the following lines shouldn't be considered as unambiguous instructions, because there are no unique instructions for situations like this, but take it as a recommendation resulting from experience.

You should consider how serious the situation is, and whether your health and life could be endangered (there is a difference between the initial firefighting activity in the event of a smouldering copy machine or a room in flames after the explosion of a gas boiler).

THE SITUATION IS NOT SERIOUS; THE FIRE IS LOCAL AND SMALLER

The recommended steps and measures specified below apply for fires in less dangerous premises (typically offices, ready-for-use warehouses, sanitary facilities etc.). In the event of a fire in a space with the presence of particularly dangerous materials (flammable liquids, explosives etc.) or another high risk (complicated layout of premises, underground space, garages, manufacturing and technological areas etc.), leave the affected area immediately and avoid firefighting.

WHAT	▪ Try to estimate the extent of the fire and the type of material that is burning, and select a suitable type of extinguisher. ▪ If technological equipment is burning, try to disconnect it from the electricity or gas supply first (by unplugging it, switching off the circuit breaker or closing the main gas lock). ▪ **WARNING:** particularly avoid using water fire extinguishers and fire hydrants for extinguishing burning live devices.
WHAT TO USE	▪ Try to extinguish a fire that is breaking out or to localise it by means of fire extinguishers (a fire extinguisher is the most suitable and it is possible to use it very quickly immediately after the start of a fire). ▪ If fire extinguishers are not sufficient or if it is not possible to approach the fire with an extinguisher, use a fire hydrant, which is more efficient. ▪ In cooperation with other people, start to prepare the water flow from a fire hydrant, even if you assume that you can extinguish the fire with fire extinguishers only (as a preventive measure).
HOW	▪ Any firefighting measures should be carried out in two-member groups for the purpose of your safety. ▪ Burning matter should be extinguished from above downwards. ▪ If it is possible, approach burning matter up to a maximally efficient distance.
WATCH OUT!	▪ Protect yourself against radiant heat, flames or even explosions (e.g. behind a door frame) or by moving along the ground. ▪ Move along the ground, where the concentration of products of combustion is lower. ▪ If it is not possible to extinguish the fire by your own means, you should move back from the room and close the door or the nearest fire shutter (e.g. firebreak door). You can increase the fire resistance of the door by pouring water on it until the fire brigade arrives. ▪ Never enter closed rooms that are burning inside; wait until the arrival of the fire brigade. ▪ If the fire spreads extremely quickly, leave the affected area (building) immediately.

THE SITUATION IS SERIOUS; THE FIREFIGHTING ACTIVITY COULD BE BEYOND YOUR STRENGTH

Leave the affected area (or building) immediately. Provide an authorised representative of your organisation (coordinator of rescue works) or, after their arrival, the commander of the fire brigade with information on the accident (the place of the fire, its scope, the situation in the area etc.).

If you decide to rescue any other endangered people, such a decision is at your own discretion only and you should consider carefully whether you are physically and mentally fit for such activity. You should attempt a rescue only if the life of a person is immediately endangered and the help of rescuers is not in sight (e.g. immediately after the fire starts) and if you feel that the risk is acceptable for you and there is a real chance of rescuing the endangered people.

Most frequent causes of occurrence of fires

TECHNICAL PROBLEM

- A defect in a technical device (usually an electrical or gas device).
- A defect in electrical installations.

NEGLIGENCE

- Incorrect usage of technical devices (usually electrical or gas devices).
- Unsuitable storage (non-observance of sufficient distances between stored flammable materials and sources of heat, e.g. lights).
- Performance of tasks with a naked flame without determination of adequate preventive measures or their non-observance.
- Smoking (e.g. cigarette butts in waste baskets).

INTENTION

Motivation of a culprit:

- causing material damage
- endangering a person (persons)
- insurance fraud
- hoax calls to the fire brigade

ELEMENTS

- Self-ignition.
- Atmospheric discharge.

Pay particular attention to checking the workplace before the last employee leaves or before the end of working hours. Fires caused (usually by negligent behaviour) immediately after the end of working hours usually have fatal consequences as a result of their late identification.

FIRE EXTINGUISHERS

Fire extinguishers are technical devices that may be used in the event of the occurrence of a fire for its liquidation in its initial phase.

Familiarise yourself with the locations of the fire extinguishers not only in your workplace, but also in other workplaces that you regularly visit.

ATTENTION: a standard filling of a fire extinguisher (5-6 kg) allows the device to be used for a period of 25-35 seconds

Types of fire extinguishers

Familiarise yourself with the most frequently used fire extinguishers.

POWDER FIRE EXTINGUISHER

Type of use: universal

- standard filling – 6 kg of extinguishing agent
- effective distance of extinguishing is approx. within 2 m
- standard, universal and special powder fillings
- standard powders are used for extinguishing fires of flammable liquids and gases
- in addition to that, universal powders may be used for extinguishing fires with solid flammable materials or some flammable metals (aluminium, magnesium)
- special extinguishing powders were developed as effective extinguishing agents for fires of flammable metals
- all types of powder fire extinguishers may be used for extinguishing live electrical devices

SNOW FIRE EXTINGUISHER

Type of use: universal (particularly live electrical devices)

- filling with inert gas CO_2 (e.g. nitrogen, argon etc.)
- standard filling – 5 kg of extinguishing agent
- effective distance of extinguishing is approx. within 1.5 m
- no subsequent damage
- it is highly versatile – usable for extinguishing flammable gasses, liquids and solid materials
- however, the main type of use of this device lies in extinguishing fires of live electrical devices
- unsuitable for extinguishing powdery materials

Attention: when extinguishing a fire in a small space it is necessary to provide sufficient ventilation (the gas that is created inside pushes oxygen out and may cause loss of consciousness)

WATER FIRE EXTINGUISHER

Type of use: solid flammable materials

- standard filling – 6 or 9 l of extinguishing agent
- effective distance of extinguishing is approx. within 4 m
- suitable for extinguishing solid flammable materials
- unsuitable for flammable liquids, except for water-based liquids
- it must not be used for extinguishing live electrical devices

Do not use it for: live electrical devices. flammable liquids

FIRE HYDRANT

A fire hydrant is a technical device designed for extinguishing fires of such an extent that they cannot efficiently be extinguished with fire extinguishers.

Key characteristics:

- first firefighting measure for larger fires
- extinguishing from a safe distance
- unlimited volume of extinguishing agent
- high efficiency of extinguishing

In spite of the fact that modern hydrant systems allow firefighting to be carried out by one person only, be careful about your own safety and carry it out in two-member groups. When firefighting move always at ground level, utilise protection, extinguish the fire from above downwards from a safe distance, and use a splintered water flow (the so-called shower), which is more effective. Be careful about scalding. If the fire spreads uncontrollably, stop firefighting and leave the affected area immediately. **The safety of people is always the first priority!**

TYPES OF FIRE HYDRANTS

Full-flow hydrant system with the option of immediate use. It may be operated by one person only.

Classic hydrant system (older type) requiring the unrolling of the fire hose and its connection to the water valve and flow line. You always have to unroll the hose before you fill it with water! It is recommended that it is used by two people together.

EVACUATION

During a fire, thinking about the rescue of people is always the first concern. Leave the building immediately when an evacuation is announced!

Instructions for evacuation

- before leaving a workplace always close the windows and doors in the room where you were
- leave the building which is being evacuated using the shortest possible emergency escape route
- stay calm, do not panic, do not run around, and move at a rapid pace
- provide help to children and handicapped or injured persons
- after you leave the building being evacuated, report to the assembly point for the purpose of checking the number of persons evacuated
- provide the fire brigade with all the information on the fire, the evacuation, and other facts
- emergency ways are marked with white pictograms on a green background
- do not use lifts during an evacuation unless they are specified for evacuation!

If you find yourself in a situation in which escape is impossible, do not forget to follow the rules that may save your life:

- stay calm and find the place which is the most distant from the place where the fire is. BE CAREFUL: it must be visible and accessible for rescuers; the best place is one with windows that open out onto a frequented street!
- close all the doors in the direction of the fire; seal all gaps with wet pieces of cloth (blankets, clothes etc.) if possible, and remove all flammable objects; try to remember (and then provide to the rescuers) the number of the room in which you are sheltering
- let people know about yourself by a mobile phone, or by calling, beating on a wall, radiator, etc.; if it is dark you should try to switch the light on and off or hang out a piece of cloth (a towel etc.) – white is best – from a window. BE CAREFUL! Leave windows closed; a draught contributes to the rapid spread of the fire!!!