

OSH & FP TRAINING

INITIAL AND PERIODIC



Abbreviations used in the presentation

OSH – Occupational safety and health

FP – Fire protection

PPE – Personal protective equipment



Why comply with occupational safety regulations?

Elimination of injuries

Elimination of occupational diseases

Improvement of working conditions

Compliance with legal obligations

Financial reasons

Compliance with OSH obligations is monitored in the Czech Republic by the Regional Labor Inspectorate (OIP).



Laws and regulations (OSH & FP)

Act No 262/2006, Labor Code

Act No 309/2006, Act regulating further requirements for occupational safety and health in labor relations and ensuring occupational safety and health during activities or provision of services outside labor relations (Act on ensuring further conditions for safety and health protection at work)

Act No 133/1985, Act of the Czech National Council on Fire Protection

Government Regulation No 378/2001, Government Regulation laying down detailed requirements for the safe operation and use of machinery, technical equipment, appliances, and tools

Act No 250/2021, Act on occupational safety in connection with the operation of designated technical equipment and on amendments to related acts



Laws and regulations (OSH & FP)

Government Regulation No 190/2022, Government Regulation on designated technical electrical equipment and requirements for ensuring its safety

Government Regulation No 191/2022, Government Regulation on designated technical gas equipment and requirements for ensuring its safety

Government Regulation No 192/2022, Government Regulation on designated technical pressure equipment and requirements for ensuring its safety

Government Regulation No 193/2022, Government Regulation on designated technical lifting equipment and requirements for ensuring its safety

Government Regulation No 194/2022, Government Regulation on requirements for expertise to perform activities on electrical equipment and for expertise in electrical engineering



Essential OSH & FP

Section 106 Every employee is obliged to take care of their own safety and health and of the safety and health of other persons who are directly affected by their actions or omissions at work to the best of their ability. Knowledge of the basic duties arising from legal and other regulations and the employer's requirements for ensuring safety and health at work is an integral and permanent part of the employee's qualifications.



Provider of occupational health services

University of South Bohemia in České Budějovice Oddělení pracovního lékařství, Nemocnice České Budějovice Boženy Němcové 54

FFPW Vodňany MUDr. Egert Jan, Jiráskova 116, Vodňany

Institute of Complex systems Nové Hrady <u>MUDr. Navarová Nataša, Hradební 338, Nové Hrady</u>

The employer's obligation is to provide information regarding the provider of occupational health services.





Risk assessment

The basic document used for risk analysis and assessment was issued as USB Rector's Ordinance R_595:

Overview of identified potential risks in the area of occupational health and safety at the University of South Bohemia in České Budějovice





Occupational health services

Medical examinations										
Initial										
Periodic										
Exit										
Special										
Follow-up										





Occupational health services

Initial medical examinations

Work category	Is the examination required?
1	NO (performed if required by the employer or employee)
2	YES
3	YES
4	YES
Occupational risk	YES



<u>Decree No 79/2013, Decree on the implementation of certain provisions of Act No 373/2011, on specific health services (Decree on occupational health services and certain types of assessment care)</u>



Occupational health services

Periodic medical examinations

Work category	Is the examination required?	When is it performed:?
1	NO (performed if required by the employer or employee)	Once every 6 years until age 49 Once every 4 years from age 50
2	YES (according to Rector's ordinance)	Once every 6 years until age 49 Once every 4 years from age 50
3	YES	Once every 2 years
4	YES	Once a year
Occupational risk	YES	Once every 2 years



<u>Decree No 79/2013, Decree on the implementation of certain provisions of Act No 373/2011, on specific health services (Decree on occupational health services and certain types of assessment care)</u>



Employee obligations

Take care of your own safety to the best of your ability.

Participate in training, including knowledge assessment.

Undergo mandatory medical examinations.

Comply with legal and other regulations to ensure OSH and FP.

Observe established work procedures.

Use the set work equipment and PPE.

Use protective devices, do not change or remove them arbitrarily.

Do not consume alcoholic beverages or abuse other addictive substances.

Report any deficiencies in the workplace to your supervisor.



Employee obligations

An employer may require an employee who knowingly failed to notify a superior of damage threatening the employer or failed to take action against the impending damage, even though this would have prevented the immediate occurrence of the damage, to contribute to the compensation for the damage caused to the employer to an extent appropriate to the circumstances of the case, unless it can be compensated for in any other way.

An employee is not obliged to provide compensation for damage caused while averting damage threatening the employer or danger directly threatening life or health, if they did not intentionally cause this situation and acted in a manner appropriate to the circumstances.



OSH & FP training for employees

Upon commencement of employment.

Periodic training (once every two years for employees, once every three years for supervisors).

Familiarization with the workplace, work procedures, operating instructions for technical equipment and devices, fire alarm guidelines, building evacuation plan, and the placement of fire extinguishers.

Special training when changing job classification or type of work, when introducing new technology or when changing production and work equipment.



OSH & FP training for employees

Section 103: The employer is obliged to determine the content and frequency of training on legal and other regulations to ensure safety and health at work, the method of verifying employees' knowledge and keeping records of training provided. If required by the nature and severity of the risk, the training referred to in the first sentence must be repeated regularly; in the cases referred to in paragraph 2(c), the training must be provided without undue delay.



No smoking

The employer must ensure that smoking is prohibited in the workplace.

Smoking is prohibited throughout all the premises of USB.

The place where the employer may allow smoking must be a closed part of the building so that smoke does not penetrate into indoor areas where smoking is prohibited.

No smoking Smoking permitted





The smoking area must be clearly marked at the entrance with the following sign:



Working hours and overtime

Mandatory overtime is limited by law. An employer cannot unilaterally require more than 8 hours of overtime per week and 150 hours per year.

Overtime is work performed in excess of the specified weekly working hours.

Overtime may only be required for serious operational reasons.

Work for which compensatory time off has been granted is not included in the limit on mandatory overtime.

The employer is obliged to provide employees with a break for meals and rest of at least 30 minutes, no later than after 6 hours of continuous work.

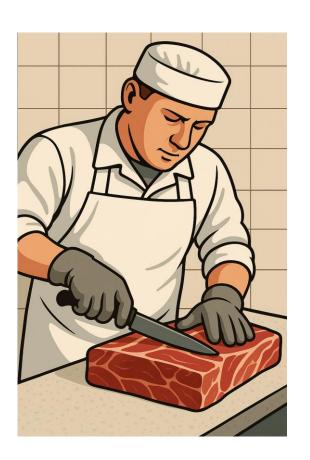
An employee who is caring for a child under the age of one cannot be required to work overtime.



Personal protective equipment (PPE)

Mandatory use. Keep in working order.

																R	IZI	K A										\neg
ČÁSTI TĚLA A ORGÁNY, KTERÉ MAJÍ BÝT CHRÁNĚNY			FYZIKÁLNÍ														C H E M I C K Á (včetně nanomateriálů)					BIOLOGICKÉ ČINITELE obsažené v				JINÁ RIZIKA		
		΄,				med	chanic	ká			tep	elná	elekt	rická	radi (zář			osoly kapalné		npaliny		aero- solech		llinách	materiálech, osobách, zvířatech	K		
			náraz	uklouznutí	pády z výšky	vibrace	statické stlačení části těla	odření, perforace, řezné a jiné rány, kousnutí nebo bodnutí	zachycení, uskřípnutí	hluk	teplo, oheň	chlad	úraz elektrickým proudem	statická elektřina	neionizující ionizující		prach, vlákna, dýmy, výpary	mlhy, jemné mlhy	ponoření	postříkání, rozprášení, vytrysknutí	plyny, páry	pevných a kapalných	přímý a nepřímý kontakt	postříkání, rozprášení, vytrysknutí	přímý a nepřímý de kontakt	utonutí	nedostatek kyslíku	nedostatečná viditelnost
			1	2	3	4	5	6	7	8	9	10	-11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	lebka	Α																										
hlava	celá hlava	В																										
uši/s	sluch	С																										
oči/:	zrak	D																										
oblič	ej	Е																										
dýcha	ací orgány	F																										
ruce		G																										
paže	(části)	Н																										
nohy	(chodidla)	I																										
nohy	nohy (části) pokožka																											
poko																												
trup/t	břicho	L																										
část t	ěla	М																										
celé t	ělo	N																										



Government Regulation No 390/2021, Government Regulation on detailed conditions for the provision of personal protective equipment, washing, cleaning and disinfecting agents



Personal protective equipment (PPE)

															HAZ	ZARDS										
						Р	HYS	ICAL	-								HEMIC				Biolo	gical agen	ts	Oth	er ha	zards
BODY PARTS	Me	char	nical						Н	eat	Ele	ctric	Rad	iation		(includin		materia uids	ls)	Aero-	Liquids	in	Materials, persons,			E
AND ORGANS TO BE															Solid	Liquid				sols			animals, etc.			sibili
PROTECTED	Impact	Slipping	Fall from height	Vibrations	static compression of body parts	Abrasions, perforations, cuts and other wounds, bites or stings	Entangling, pinching	Noise	Heat, fire	Cold	Electric shock injury	Static electricity	Non-ionizing	lonizing	Dust, fibres, smoke, vapours	Fog, mist	Submersion	Spraying, dispersion, spurting	Gases, vapours	Solid, liquid	Direct and indirect contact	Spraying, dispersion, spurting		Drowning	Lack of oxygen	Insufficient visibility
	1	2	3	4	5	6	7	8	9	10	11	12	. 13	3 4	13	16	17	l8	19	20	21	22	23	24	2	26
Head Skull A																										
Whole B head																										
Ears / C Hearing																										
Eyes / Sight D																										
Face E																										
Respiratory F organs																										
Hands G																										
Arms (parts) H																										
Legs (feet)																										
Legs (parts)																										
Skin K																										
Torso/belly L																										
Body part M																										
Whole body N																										



Electrical appliances

Appliances must be inspected regularly.

Employees must not use damaged appliances or movable electrical leads.

Employees must not use their own electrical appliances that are not registered and have not been inspected.

Appliances may only be used in a predetermined and approved location.

Employees are not allowed to make any modifications to appliances.





Chemicals

Employees must be acquainted with the effects of chemical substances and how to handle them, protective measures, first aid principles, necessary decontamination procedures, and procedures for dealing with malfunctions and accidents. They are required to follow all instructions provided by the manufacturer of the hazardous substance on the product label.

Flammable substances must be stored separately from other chemicals, including poisons, in a designated area.





Work injury

The employee must immediately report the accident to their supervisor.

The employee is obliged to provide first aid.

In the event of a serious accident, call the emergency services by calling 155.

The injured employee or witnesses to the accident are obliged to cooperate in clarifying the causes of the accident.

A work injury is understood to mean damage to the health or death of an employee that occurred independently of his or her will as a result of a short-term, sudden and violent external influence while performing work tasks or in direct connection with them. However, an accident that happened to an employee on the way to or from work is not considered a work injury.



Work injury

The employer is also obliged to <u>record</u> every accident at work in the accident book, even if it did not result in incapacity for work or resulted in incapacity for work for less than 3 days

A person who has suffered an accident at work is entitled to compensation for loss of earnings, pain and suffering, diminished ability to participate in social life, reasonable medical expenses, and material damage.



Government Regulation No 201/2010, Government Regulation on the method of recording accidents, reporting and sending accident reports



Work injury

A record (form) of the work injury shall be drawn up without undue delay, but no later than within 5 working days from the date on which the employer became aware of the accident, if:

The work injury resulted in the employee's incapacity to work for more than 3 calendar days or the employee died as a result of the accident at work.





Designated technical equipment

If used incorrectly or operated improperly, they pose a serious risk to life and health, property and the environment..





Designated technical equipment

Electrical	Pressure	Gas	Lifting
in areas where there is a risk of explosion and fire from flammable substances	steam and liquid boilers with a maximum working pressure above 0.5 bar	boilers, burners, and gas distribution piping system	cranes, hoists, and motorised pulley systems
in areas where more than 200 people are allowed to be present	compressed gas cylinders for oxygen or acetylene	pressure vessels and storage tanks for natural gas	lifts for transporting persons and goods
in medical facilities	steam sterilizers		
for protection against the effects of atmospheric and static electricity			



Pregnant women

are prohibited from performing the following activities:

Work with chemicals classified as toxic, carcinogenic, mutagenic, or reprotoxic.

Work with biological agents of groups 2, 3, 4 (viruses, bacteria, and fungi that can cause infections).

Work with ionizing radiation.

Frequent lifting of loads heavier than 5 kg, occasionally heavier than 10 kg.

Work at heights above 1.5 m.

Night work.

Some work with animals.



Alcohol in the workplace

The employer has the right to check for alcohol in the workplace.

The employee may refuse a screening breath test.

After refusing a breath test, the employer must offer the employee a professional medical examination—blood sampling and testing.

If the employee also refuses a professional medical examination, they are considered to be under the influence of alcohol or other addictive substances.





Meal break

The employer is obliged to provide the employee with a break for meals and rest lasting at least 30 minutes after no more than 6 hours of continuous work; underage employees must be provided with this break after no more than 4.5 hours of continuous work.

If the break for meals and rest is divided, at least one part of it must be at least 15 minutes long.

Breaks for meals and rest are not provided at the beginning and end of working hours and are not included in working hours.

If a safety break falls during a break for meals and rest, the break for meals and rest is included in working hours.



Load handling

Proper lifting technique: Use your legs, not your back, when lifting loads. Keep your back straight, bend your knees, and lift the load using your leg muscles.

Proper weight distribution: If possible, divide heavy loads into smaller parts. When carrying loads, try to maintain balance and stability.

Use of aids: Use available aids such as trolleys, lifting devices, or wheelbarrows to minimize physical effort and the risk of injury.

Correct posture: When carrying loads, keep the load as close to your body as possible and avoid twisting your torso. When turning, move your whole body, not just your waist.

Weight limits

Occasional lifting: men 50 kg, women 20 kg
Frequent lifting: men 30 kg, women 15 kg
When working in a seated position: men 5 kg, women 3 kg



Work at height

Work at height includes any activity performed at a height of more than 1.5 meters above the ground or above an unsecured depth where there is a risk of falling. This may include work on roofs, scaffolding, ladders, platforms or other elevated places.

Use of PPE
Workplace safety
Employee training
Equipment inspection

Work safety at height



Ladders

For short-term work only.

Undamaged ladder.

Ensure stability.

Safety chains, stabilizing bars, and fittings on double ladders.

Both upper ends must rest on the upper surface.

The ladder for climbing must extend at least 1.1 m above the exit level.

Do not place improvised mats under the ladder.

Do not carry loads weighing more than 15 kg.

Only one person is allowed on the ladder at a time.

Observe the maximum load capacity.

Distance between feet and upper edge (single ladder 0.8 m; double ladder 0.5 m).



Workplace lighting

Uniform lighting: Use of natural light.

Local lighting directly above the desk.

Timely replacement of faulty light fixtures.

Window cleaning.

Type of work activity	Light intensity per m2
Public outdoor workplace	30 lux
Room illumination for easy orientation during occasional stay	50 lux
Workplaces including leisure activities but vision plays a key role	100 lux
Workplaces where high-contrast equipment is handled	300 lux
Workplaces where medium-contrast equipment is handled	500 lux
Workplaces where high-contrast items are handled	1000 lux
Workplaces where items at the edge of visibility are handled	3000 – 10000 lux
Corridors and communication areas	100 lux
Receptions	300 lux
Changing rooms and toilets	200 lux
Offices – writing, reading, data processing	500 lux
Offices – document sorting, copying	300 lux
Rest areas	100 lux
Loading ramps	150 lux
Rack warehouses without operator	20 lux
Rack warehouses with operator	150 lux
Bakery	300 lux
Laundry and dry-cleaning service	300 lux
Hairdresser	500 lux
Jewellery shop	1000 lux
Electronics assembly	1000 lux
Watchmaking	2000



What is the correct way to sit at a computer?

When sitting, the height of the tabletop should be the same as the height of the elbows. The forearms and upper arms should form a 90° angle.

The chair should allow for an upright posture.

The calf should form a 90° angle with the thigh at the knee.

The distance between the monitor and the eyes should be approximately 45–70 cm.

The center of the screen should be about 20–35 degrees below the horizontal axis of the eyes and the upper edge slightly above the horizontal axis of the eyes.

The keyboard and mouse should be within reach. For men, the forward reach is 50 cm, for women 44 cm. The lateral reach is 77 cm for men and 69 cm for women. We

recommend using a gel mouse pad to support the forearms.

The height of the desk should be about 72 cm above the floor, slightly less for women.

There should be enough space for the legs to be stretched out. A footrest that can be positioned and tilted is ideal and very effective.





Mental strain

Work pressure

Stress

Interpersonal relationships

Insufficient recognition

Excessive workload

Burnout



Work categorization table

	CATE	GORY	
1	2	3	4
no probable adverse health effects	adverse health effects in exceptional cases	hygiene limits are exceeded	there is a high risk of health hazards at work

Each work position is classified according to the risk assessment at the specific workplace.



Fire safety

Do not cause a fire.

Observe fire safety regulations and prohibitions.

Do not damage fire protection equipment and keep it in good working order.

Keep escape routes, fire-fighting equipment, and electrical power distribution equipment clear.

Do not work with damaged electrical equipment.

Switch off electrical appliances when leaving the workplace.

Observe the regulations for storing flammable substances.



Fire

If a fire is detected, extinguish it using available means.

When a fire alarm is sounded, follow the evacuation procedure.

Know the location of fire extinguishers (the location is marked).

Know the location of the fire alarm guidelines (visibly displayed).

Know the location of the building evacuation plan (emergency exits, assembly points).

Report any fire immediately to the relevant regional fire department.



· Práškový hasicí přístroj		
ldeální použití:	 § Průmysl, obchod, energetika, důlní hornictví, olejové a plynové kotelny, kanceláře, knihovny, rodinné domy, rekreační objekty, garáže. § Třída požáru: A, B, C. 	
Vhodné použití:	 § Úřady, sklady, archívy, obchodní domy, školy, hotely, nemocnice, chaty, sklepy, dílny, železniční přeprava, automobily. § Tam, kde nesmí dojít k poškození vodou nebo pěnou. § K hašení zařízení pod napětím max. do 1000 V z min. vzdálenosti 1 m. 	
Nevhodné použití:	S Jemná mechanika a elektronika, telefonní ústředny, elektrické rozvodny, místnosti, kde jsou přístroje citlivé na prach.	
Nesmí se použít:	• § Lehké hořlavé a alkalické kovy, volně ložené sypké materiály, prach (nebezpečí výbuchu a rozšíření požáru).	



Dry powder fire extinguisher

Ideal use:

- Industry, trade, energy, mining, oil and gas boiler rooms, offices, libraries, family homes, recreational facilities, garages
- Fire class: A, B, C

Suitable use:

- Offices, warehouses, archives, department stores, schools, hotels, hospitals, cottages, cellars, workshops, railway transport, cars.
- In areas where damage by water or foam must be avoided.
- For extinguishing live equipment up to 1000 V from a minimum distance of 1 m.

Unsuitable use:

- Precision mechanics and electronics, telephone exchanges, electrical switchboards, rooms with dust-sensitive equipment. Must not be used:
- Light, flammable, and alkali metals, loose bulk materials, dust (risk of explosion and spread of fire).



·Sněhový hasicí přístroj Elektrická zařízení pod napětím (výpočetní střediska, telefonní ústředny, energetická centra), hořlavé plyny. • § Ideální použití: • § Třída požáru: B, C. Laboratoře, potravinářství, energetika, prostory s jemnou mechanikou, elektronickými zařízeními nebo Vhodné použití: hořlavými kapalinami. Tam, kde by neměly zůstat zbytky hasební látky. Pevné látky typu dřeva, textilií, uhlí (možnost opětovného vznícení od zahřátých konstrukcí). • § Na otevřených prostranstvích s velkou výměnou vzduchu. Nevhodné použití: V uzavřených prostorách s výskytem osob (možnost vzniku nebezpečné koncentrace CO₂ – nebezpečí udušení). Nesmí se použít: Hořlavé prachy, sypké látky (nebezpečí výbuchu a rozšíření požáru), hořlavé a alkalické kovy. • §



Carbon dioxide extinguisher

Ideal use:

- Live electrical equipment (computer centers, telephone exchanges, power centers), flammable gases.
- Fire class: B, C

Suitable use:

- Laboratories, food industry, energy sector, rooms with precision mechanics, electronic equipment or flammable liquids.
- Where no residue of the extinguishing agent should remain.

Not suitable for use:

- Solid materials such as wood, textiles, coal (risk of re-ignition from heated structures).
- In open areas with high air exchange.
- In enclosed spaces with people present (possibility of dangerous CO2 concentrations risk of suffocation).

Must not be used:

- Combustible dusts, loose substances (risk of explosion and spread of fire), flammable and alkaline metals.



NO ZÁKAZN	* Pěnový hasicí přístroj
Ideální použití:	 § Hořlavé kapaliny nemísící se s vodou (benzín, motorová nafta, minerální oleje, tuky apod.). § Třída požáru: A, B.
Vhodné použití:	• § Sklady, komerční objekty, domácnosti, pevné látky (dřevo, papír, uhlí, textilie, pryž).
Nevhodné použití:	• § Hořlavé kapaliny nízkovroucí a mísící se s vodou (alkoholy), hořlavé plyny a kovy.
Nesmí se použít:	 § Elektrická zařízení pod napětím a v jejich blízkosti (riziko úrazu el. proudem), hořlavé kovy (např. hořčík a jeho slitiny s hliníkem).



Foam fire extinguisher

Ideal use:

- Flammable liquids that do not mix with water (gasoline, diesel fuel, mineral oils, fats, etc.)
- Fire class: A, B.

Suitable use:

- Warehouses, commercial buildings, households, solid materials (wood, paper, coal, textiles, rubber).

Unsuitable use:

- Flammable liquids with low boiling points and miscible with water (alcohols), flammable gases and metals.

Must not be used:

- Live electrical equipment and in its vicinity (risk of electric shock), flammable metals (e.g. magnesium and its alloys with aluminium).



Vodní hasicí přístroj

Ideální použití:	 § Pevné hořlavé látky organického původu, které žhnou (dřevo, papír, sláma, uhlí, textil apod.). § Třída požáru: A
Vhodné použití:	 § Papírenský a dřevařský průmysl, sklady pevných hořlavých látek, školy, archívy. § Hořlavé kapaliny rozpustné ve vodě (alkoholy, ketony).
Nevhodné použití:	 § Hořlavé kapaliny nemísící se s vodou (benzín, motorová nafta, minerální oleje), hořlavé plyny. § Cenné materiály a zařízení, kde je nebezpečí škod promáčením.
Nesmí se použít:	 § Elektrická zařízení pod napětím a v jejich blízkosti (riziko úrazu el. proudem), lehké a alkalické kovy, látky, které prudce reagují s vodou.



Water fire extinguisher

Ideal use:

- Solid combustible materials of organic origin that glow (wood, paper, straw, coal, textiles, etc.)
- Fire class: A

Suitable use:

- Paper and wood industry, warehouses for solid combustible materials, schools, archives.
- Flammable liquids soluble in water (alcohols, ketones).

Unsuitable use:

- Flammable liquids not miscible with water (gasoline, diesel fuel, mineral oils), flammable gases.
- Valuable materials and equipment where there is a risk of damage from soaking.

Must not be used:

- Live electrical equipment and in its vicinity (risk of electric shock), light and alkali metals, substances that react violently with water.



Providing first aid

The first aid plan is a set of principles and procedures for providing first aid.

Záchranka app is a great tool for providing first aid.



First aid Station (first aid kit)











Safety signs and their depictions Information



Main gas shut-off valve





Safety signs and their depictions Warning Mandatory





Explosion hazard zone 2!

Wear protective gloves



Safety signs and their depictions Prohibition





Please take the test