Health and Safety Instruction

Health and Safety Department
Nazarbayev University
1. General information about the organization and its activities.
2. The main provisions of the legislations of the Republic of Kazakhstan in the field of health and safety.
3. Internal regulations of the organization.
4. Organizing HSE work in the organization.
5. General rules of conduct of employees in the workplace, the territory of the organization, support and service areas.
6. Main dangerous and harmful factors.
7. Measures and tools for prevention of accidents, injuries and occupational diseases.
9. Basic requirements for electrical safety and operational safety of electrical devices.
10. The main requirements of industrial sanitation and personal hygiene.
11. Personal protective equipment (PPE).
12. The circumstances and causes of individual groups of accidents, fires occurring due to security breaches.
13. The order of investigation and registration of accidents, occupational diseases.
14. Fire safety, ways and tools to prevent fires, explosions, accidents, actions required in case if they occur.
15. Measures providing first aid to injured persons, actions in case of accident at work.
The goal of the autonomous organization of education "Nazarbayev University" is to train highly qualified professionals for the development of Kazakhstan in conditions of a globally diversified economy and create an attractive environment for research and development, linking together academic and entrepreneurial talents, and combining the results of scientific research with the possibilities of market production.

Since the beginning of construction in 2007, the main campus area of Nazarbayev University with the construction of Science Park has grown from the initial 76.3 hectares to 145.7 hectares.
ORGANIZATION OF WORK ON HEALTH AND SAFETY IN THE ORGANIZATION

• Bylaws on Health and Safety Department
  ✓ Planning, implementation, monitoring, arrangement and coordination of health, safety and the environment (hereinafter-HSE) across the University
  ✓ coordination of activities, implementation, monitoring and review of HSE regulations across the University and its organizations

• Regulation on interaction of private entities and corporate funds with autonomous organization of education Nazarbayev University from 22.04.2014

• Fire safety regulations for Nazarbayev University from 17.06.2014

• Security policy for Nazarbayev University from 23.04.2013

• Instructions for fire safety, action in the event of emergencies, the admission for work with hazardous substances, etc.
MAIN PROVISIONS OF THE LEGISLATION OF THE REPUBLIC OF KAZAKHSTAN AND ORGANIZING HEALTH AND SAFETY

- **The Constitution of the Republic of Kazakhstan** 30th August 1995 (with amendments and additions - 02.02.2011)
- **Law of the Republic of Kazakhstan “About Civil Protection”** 11 April 2014 № 188-V (with amendments and additions - 10.01.2015)
- **Code of the Republic of Kazakhstan “About people's health and healthcare system”** 18th September 2009 № 193-IV (with amendments and additions - 19.05.2015)
- **Industry regulations on health and safety area and standards: SNIP, GOST (СНиПы, ГОСТ)**
1. **Introductory instruction** – representative of HSE Department or responsible persons for HSE

2. **On-site instruction** (labs, heating boiler room, construction plant) – head of office or responsible person for HSE in that particular office/division

3. **Secondary On-site instruction** - 1/6 months

4. **Unplanned instruction** – due to changes in work conditions or the state of emergency

5. **Target instruction** – in performing certain tasks
1. In accordance with the legislation of the Republic of Kazakhstan, the territory of Nazarbayev University is considered as a non-smoking area (however, there is a possibility to equip the specially designated public places for smoking).

2. The use of alcohol and drugs is strictly prohibited.

3. All empty cans, dirty rags, disposable cups and trash shall be disposed in trash cans.

4. Do not leave unattended premises, and the keys to the doors of premises, safes, cabinets and other locking devices and equipment.

5. Be attentive to the signals, alerts and notifications about the dangers in the mass public notices (posters, corporate e-mails, meetings) and take the required instructions.

6. When driving on the territory of the organization, limit the speed to 20 km/h, and at the corners - no more than 10 km/h.

7. Upon detection of unsafe acts or conditions, employee must give notice of this case to a direct supervisor and / or inform the responsible unit with notification of the H&S Department.
DANGEROUS AND HARMFUL FACTORS

1. Chemical substances
2. Construction sites
3. Hatches, balconies, open windows
4. Slips, trips and falls
5. Cables
6. Lifting weights
7. Weather conditions (frostbite or heat)
8. Moving vehicles
9. Stairs

Please take your time when climbing / descending stairs and use handrails for safety (three-point support) !!!
Electric Shock – one of the main causes of injury. Breaking the rules of safe operation of electric equipment, may cause death, serious injury, fire, or explosion.

When finding ragged wires of power lines:
1) Do not touch ragged wire
2) If possible isolate the area not closer than 20 meters
3) Call 6262 / 6263

Sources of Electric Shock:
1. Stationary electric equipment;
2. Electric devices;
3. Portable domestic electric devices;
4. Raged wires, connectors and other components of electric equipment.
1. Helmet
2. Protective glasses
3. Face shield
4. Protective footwear
5. Coveralls
6. Spec. shoes
Warning Signs have to be installed in accordance with the requirements of local authorities:

1. **Firefighting Equipment** – points to the place where the equipment is located.

2. **Warning Signs** – warns about potential danger.

3. **Prohibiting Signs** – prohibits certain actions.

4. **Directional Signs** – shows the evacuation route and/or protective equipment.

5. **Designating Signs** - tells to follow/perform certain procedures.
• First aid kits are located in the security’s office in each block.
• Persons trained to provide first aid, do not provide the full treatment. Ambulance is required!
• Any employee receiving medications that affect their health and work must inform their supervisor.
Procedures for using fire-fighting equipment and automatic fire-fighting installations

After pressing the button (manual call point) or smoke detector starts alarming the automatic fire alarm system after 120 seconds shall:

- **automatically switch on** the fire alarm, voice notification of evacuation from the building in three languages (English, Kazakh and Russian), smoke exhaust system, pumps of fire-fighting water supply systems (in the event if the system pressure drops below 3 bars);
- **automatically switch off** lifts, ventilating and air-conditioning system.

When the temperature in the University buildings runs up to 68 degrees centigrade, the sprinkler bottle cracks and water starts sprinkling. The bottle is automatically activated approximately in 2-3 minutes when high temperature is detected.
FIRE ACTION

In case of fire the following steps should be taken:

1. Activate the fire alarm by breaking the glass of a manual call point (the button is mounted at a height of 1.5 m above the floor level in building corridors;
2. Exit the building through the nearest exit way by following the signs of evacuation routes according to the evacuation plan installed in building corridors;
3. Do not use elevators during the evacuation;
4. After exiting the building proceed to the designated assembly point; stay at the designated assembly point until permitted to return to the building by authorized person;

Manual call point for a fire alarm
Evacuation route pointer (indicator)
Requirements for evacuation routes, evacuation and emergency exits and gathering area in the event of a fire

1. All evacuation routes need to be accessible, carpets and carpet rolls and other floor coverings should be fixed and have flame proofing.
2. It is prohibited to block evacuation routes, doors, escape hatches at balcony and loggia, passages to communicating sections and exits to outside evacuation stairs with furniture, equipment and other things.
3. It is not allowed to maintain equipment that hinders from using and closing fire-resisting and smoke protection doors (tools).
   It is prohibited to use outside door of evacuation exits for different purposes.
4. Evacuation exits should be used only in emergency.
   Fire safety signs, light pointers to evacuation routes and emergency doors should be in working order and enabled state.
5. In the event of evacuation all employees and students shall gather at the designated assembly points.
If it is possible:

1. In case of fire one should report immediately to the following services (with indication of details as University address, fire location: block No., floor, office and name of the reporting person):
   - **112** – unified dispatching service (emergency call is possible from any mobile phone without SIM-card and blocked phones);
   - **62-62** or **62-63** – 24-hours dispatching service of USM PE;
2. attempt to extinguish fire at the initial stage by using a fire extinguisher (portable fire extinguisher) pursuant to the Rules for using basic fire-fighting equipment (Attachment 2 to these Rules);
3. take actions to evacuate people by following the evacuation plan.

Evacuation route pointer (indicator)
BASIC FIRE-FIGHTING EQUIPMENT

In order to extinguish a fire at the initial stage in the University buildings basic fire-fighting equipment is provided which shall be used compliant to the Guide for using basic fire-fighting equipment.

Basic fire-fighting equipment comprises all types of portable and movable fire extinguishers, fire hydrants and fireproof clothes (asbestos cloth, smothering blanket, felted cloth, etc.).

**Portable fire extinguishers are located in fire hose cabinet signed as ‘ПК’ in corridors of buildings.**

- Handle to open the cabinet;
- Fire hose;
- Bibcock for water supply;
- Booster hose

Высота от пола 1,35 м
Guide for using PTE (powder-type extinguisher):

1. PTE is used based on the type of the powder contained in the extinguisher. Extinguisher contains special powder which covers flaming material with a coating.
2. PTE is designed for extinguishing a small fire of A, B, C, E categories (electrical installations up to 1000 V only):
3. For activating the extinguisher one should follow the below instructions:
   - Pull the pin 9 (seal);
   - Squeeze the lever 7 and quickly release it;
   - After 5 seconds press the lever 7 and aim the powder at the base of a fire;
   - Try to extinguish the fire from upwind position;
   - It is allowed to squeeze the lever 7 several times when extinguishing a fire.

Image 1. PTE structure.
- 1 — body; 2 — charge; 3 — siphon tube; 4 — space for working gas (expelling); 5 — pressure gauge; 6 — handle; 7 — lever; 8 — hose with nozzle; 9 — safety pin.
Guide for using carbon dioxide extinguisher (CO2 extinguisher):

1. CO2 extinguisher works by displacing dioxide carbon under extreme pressure in the extinguisher. Dioxide carbon is filled under the pressure 5.7 MPa (58 kgf/cm²) at air temperature of 20°C. Maximum working pressure in the cylinder at temperature of +50°C should not exceed 15 MPa (150 kgf/cm²).

2. CO2 extinguisher is used for extinguishing small fires of B, C, and categories (electrical installations under 1000 V only).

3. For activating CO2 fire extinguisher one should follow the instructions below:
   - pull the pin;
   - aim the horn at a fire source by turning the body of the extinguisher;
   - squeeze the lever tightly directing the jet to a fire;

   In order to prevent cold injury it is prohibited to touch fire extinguishing substance; try to extinguish the fire from upwind position;

   it is allowed to squeeze the lever several times when extinguishing a fire.

![Construction and mechanism of lever-typed lock and release device.](Image 2)

1 — body; 2 — lever; 3 — siphon tube; 4 — horn; 5 — handle; 6 — safety pin; 7 — dioxide carbon.
When To Fight The Fire...

Fight the fire only if all of the following are true:

- Everyone has left or is leaving the building.
- The fire department is being called.
- The fire is small and confined to the immediate area where it started (wastebasket, cushion, small appliance, etc.).
- You can fight the fire with your back to a safe escape route.
- Your extinguisher is rated for the type of fire you are fighting and is in good working order.
- You are trained to use the extinguisher and know you can operate it effectively.

If you have the slightest doubt about whether you should fight the fire — DON'T! Instead, get out and close the door behind you.

PROTECT YOURSELF AT ALL TIMES!

Stay low. Avoid breathing the heated smoke and fumes or the extinguishing agent.

If the fire starts to spread or threatens your escape route, get out immediately!

Remember:

If you are called on to use an extinguisher, just think of the word "P.A.S.S."

PULL

the safety pin at the top of the extinguisher.

AIM

the nozzle or hose at the base of the flames. Stay between six and eight feet away from the flames.

SQUEEZE

or press the handle.

SWEEP

from side to side at the base of the fire until it goes out.

By following these procedures, a fire can be extinguished in the quickest and safest manner possible.
Yellow – pay attention to suspicious objects and people

Orange – have ID’s with you, avoid places of mass gathering

Red – limit children’s time outside, prepare for evacuation, turn on radio and TV, stay alert.
All cases of injuries must be immediately reported to management with notification of the H&S Department (hse@nu.edu.kz)

or call: 70-61-41, 70-59-19

1. Each employee/student must take responsibility for their personal safety and the safety of the people around.

2. Everyone has to carry out work in the safest way to reduce or eliminate the risk that poses a danger to employees, environment and society.

3. Preventing and eliminating threats - should be a daily habit of each employee.
Thank you for taking time to attend an introductory induction!