# Fire protection according to DIN 14096

The Fire Protection Regulations shall enter into force upon signature and shall replace any previous agreements made accordingly.

The knowledge and observance of the fire protection regulation DIN14096 and its appendices are confirmed by signature.

	Date	Signature
Management: (Organizational Unit)	13.02.2019	Prof.Dr. Christoph Schneider
Fire protection officer: (organizational unit)	13.02.2019	NN
Fire Safety Officer: (Technical Department)	13.02.2019	Dr. Udo Hartmann

## 1. Fire protection regulation DIN 14096 - A



# 2. Fire protection regulation DIN 14096 - B

#### 2.1 Introduction:

The management of the Humboldt-Universität zu Berlin (HUB) provides the general framework for fire protection for the organisational unit, Rudower Chaussee 16, 12489 Berlin of the Humboldt-Universität zu Berlin with the present Fire Protection Regulations and the rules contained therein.

The management is responsible for compliance with and control of the present fire protection regulations. The fire protection regulations are intended to protect the lives and health of employees and other persons (students, guests, visitors, external company employees) and to prevent or minimise possible damage to property. It contains specifications for fire prevention measures and provides information on the behaviour in the event of a fire. The interests of people with disabilities shall be given special consideration in accordance with the applicable requirements.

Legal bases for the fire protection regulations are the building regulations, the building permit, the workplace regulations, the ordinance on the operation of structural facilities (Betriebs-Verordnung - BetrVO) and the recognized rules of technology.

The requirements of DIN 14096 and the Berlin Fire Protection Principles are taken into account and the Fire Protection Regulations are divided into 3 parts with different addressees:

Part A: All persons staying in the organizational unit or on the premises of the organizational unit of Humboldt-Universität.

Part B: All persons staying in the organizational unit or on the premises of the organizational unit of Humboldt-Universität not only temporarily (e.g. employees without special fire protection duties).

Part C: Persons with special fire protection duties The obligation to comply with the framework house regulations of Humboldt-Universität zu Berlin and the fire protection principles of Humboldt-Universität zu Berlin is pointed out.

#### 2.2 Display:

See fire protection regulations DIN 14096 - Part A

#### 2.3 Fire prevention

Please inform yourself about the location of the nearest fire extinguisher and about the escape route or emergency exit.

All employees and students are obliged to contribute to the prevention of fires through their behaviour. The following rules must be observed by all employees and students:

- Order and cleanliness make a fundamental contribution to preventive fire protection. Waste must be disposed of in the containers provided. The accumulation of waste materials and easily combustible substances/materials is to be avoided.
- Acts which cause or increase fire hazards, in particular the use of open fire and the carriage of fire accelerators or explosive substances (except those used for teaching and research) are prohibited.
- Smoking is prohibited inside the buildings.
- The use of open fire for grilling requires the written consent of the Technical Department.
- Employees and students who leave their room at the end of their working hours must ensure
  that light and electrical equipment are switched off (insofar as they do not have to be switched
  to continuous operation for operational purposes) and that there is no other risk of fire.
  Windows and doors shall be closed.

- The storage of combustible materials shall be limited to the minimum necessary. Flammable liquids, chemicals, gases, radioactive substances, etc. must always be stored in the appropriate places.
- Electrical systems and devices may only be operated in a technically faultless condition in compliance with the frame house regulations of the HUB and the manufacturer's instructions. They must comply with VDE regulations and have a valid test seal. This also applies to private electrical equipment, the operation of which must be approved by the responsible official superior.
- When connecting electrical devices, make sure that the mains supply is not overloaded.
   Permanently installed electrical appliances (stationary electrical appliances) may only be connected by qualified electricians. Repairs may only be carried out by qualified personnel.
- The installation of large equipment (copiers, etc.) must also be approved by the technical department.
- In the event of faults (e.g. flickering light, scorching smell, etc.), they must be disconnected from the mains by the operator and the supervisor must be informed.
- Flammable work (hot work) such as welding, flame cutting, abrasive cutting, guarantee work with flames, etc. may only be carried out with written permission (welding permit certificate). The safety precautions listed in the welding permit must be observed.

## 2.4 Fire and smoke propagation

Fire and smoke protection doors serve to keep escape and rescue routes free of smoke and other dangerous fire gases. Smoke and heat exhaust systems are located in the entire area of the organisational unit. They make it possible for smoke to escape in the event of a fire. Misappropriation (e.g. for ventilation purposes) is not permitted.

- All fire and smoke doors shall be kept closed, in particular doors to corridors and stairwells.
   This does not apply to automatically closing fire and smoke protection doors. The functionality of automatically controlled door systems must be ensured at all times.
- Fire and smoke protection doors must not be wedged or otherwise locked. Everyone is obliged, for example, to remove wedges from fire and smoke protection doors or objects from their closing path.
- If present, smoke and heat ventilation systems must be operated. The instructions for operating the mechanical smoke extraction systems must be followed.
- Cellar light shafts used for smoke extraction must not be obstructed or covered.
- Avoid any unnecessary air supply to the source of the fire (keep windows and doors closed only open when leaving the room).
- Damage to the aforementioned equipment must be reported to the technical department or the security guard.

## 2.5 Escape and rescue routes

Escape and rescue routes are necessary corridors and stairs which serve to clear and rescue persons in the building in the event of fire or disaster and are identified by information signs (see exemplary pictograms).



In addition to the marking in the building, the escape and rescue routes are marked in the escape and rescue plan.

Traffic areas (corridors or corridors, stairs) along escape and rescue routes must be kept permanently clear so that the use of escape and rescue routes is unimpeded. They may not be used for the storage or parking of objects and materials.

- Emergency exits must be accessible in the direction of escape and must not be blocked or locked during opening hours.
- Fire brigade access roads and marked areas for the fire brigade must be kept clear.
- Every employee must be informed about the location and course of escape and rescue routes. It has to take care that these paths are not obstructed (part of the safety instruction).
- Everyone has the duty to memorise the escape and rescue routes and to remove or have removed any obstructions by appropriate measures.
- Safety signs (safety signs such as fire protection, rescue and first aid signs) as well as
  "escape and rescue plans" showing the route of the rescue routes and all fire extinguishing
  and reporting options must not be concealed or delivered.
- The collection point for all persons is XXX (see escape and rescue plan). XXX can be used as an alternative.

## 2.6 Alarm and extinguishing devices

Fire extinguishers and fire alarms are located at different points in the building. Your location is clearly marked with pictograms. Each employee should be informed about where these facilities are located in the work area and how they are managed. Defects in fire protection equipment must be reported immediately.

- Equipment, means and devices used to prevent, report and combat fires or to prevent the spread of fires (including their marking) must not be damaged, removed without authorisation or their function impaired.
- Manual shut-off devices for gas, water, electrical systems and hydrants must not be adjusted.
- All employees and students are obliged to inform themselves about the location and function of fire detectors and fire extinguishers.

Fire alarm devices are:

Fire detector / house alarm

Brandmelde-Anlage

Fire alarm system (partial)



## extinguishing devices

The entire organisational unit is equipped with ABC hand-held fire extinguishers, each with a capacity of 6 litres. They are distributed in the areas. In corridor areas there are risers (number and location according to fire brigade plans).

In corridor areas there are risers (number and location according to fire brigade plans).

CO2 extinguishers are available in defined areas (e.g. xx).

- All employees must be instructed about the locations close to their workplace and the mode
  of operation of fire extinguishers and fire alarm systems as well as about their behaviour in the
  event of a fire (part of the safety instruction or instruction in fire protection).
- Everyone must ensure that the locations of the fire protection equipment are not obstructed and are easily accessible.
- Any improper use of fire extinguishers, fire extinguishers and alarm means is prohibited.
- Used fire extinguishers must not be re-hung in the appropriate holder, but must be placed on the floor underneath the holder so that they can be replaced in a controlled manner.
- The replacement of used or defective fire extinguishers, as well as the absence of fire holes, must be reported immediately to the responsible persons and responsible persons.
- The fire safety officer supports the training of employees.
- The employees must be familiar with the choice of the correct extinguishing agents, the handling and the locations of the fire extinguishers.

fire class	Suitable fire extinguisher available	Flammable substances
A	ABC powder extinguisher	Fires of solid substances burning with glowing and flaming formation, e.g. wood, paper, textiles
В	ABC powder extinguisher, CO2 extinguisher	Fires of liquid
С	ABC powder extinguisher	Fires of gaseous substances burning under flame formation, e.g. propane, town gas
F	Special extinguishing agent (saponification)	

- ABC foam extinguishers are suitable for fighting fires in electrical systems. Caution with electrical systems - only up to 1,000V - minimum distance 1m.
- Fire extinguishers must always be kept ready for use. They must not be used for any other purpose. Access to fire extinguishers must be ensured at all times.

#### 2.7 Behaviour in case of fire

- Stay calm inconsiderate action can lead to panic. A "Behaviour in case of fire" (posted or part
  of escape and rescue plans).
- Help must be provided to all persons in case of need. This is particularly true for people with disabilities.
- The extinguishing of fires must be initiated immediately with the extinguishing agents available, if there is no danger for one's own person. Basically, human rescue comes before fire-fighting.
- Attention must be paid to warning and alarm signals. The instructions of the employees entrusted with fire protection duties must be followed at all costs. The same applies to fire brigade orders.
- It must be ensured that all persons leave the danger zone.
- Elevators may not be used for evacuation measures. Exceptions are fire brigade lifts and transport platforms for people with disabilities to climb stairs.
- In the event of a fire, any unnecessary air supply to the source of the fire must be avoided and the windows and doors must be closed or kept closed (not closed).
- You can't let burning people run away. They shall be wrapped in coats, jackets, blankets, scarves, etc. and rolled on the floor.
- In the event of fires at electrical systems, the current must be switched off immediately, if possible (disconnect from voltage).
- The fire brigade's attack routes must be kept clear. The fire department must be informed by the security guard: This can be supported by employees with local knowledge.

## 2.8 Report fire

If a fire cannot be fought sufficiently by one's own defences, the fire must be reported. In such a case, any person who detects a fire must immediately notify the fire brigade and the security guards or reliably arrange for another person to do so. The alarm is triggered by a call or by activating the nearest fire detector/house alarm. For pushbutton alarms, the pane must be smashed and the button pressed.

The following information is required for a fire alarm by telephone:

- i. Where's the fire? Location Where there is a fire within the organisational unit (e.g. floor, room number) The address for the organisational unit of the HU is: Humboldt-Universität zu Berlin Geographisches Institut, Alfred-Rühl-Haus Rudower Chaussee 16, 12489 Berlin
- **ii. What's burning?** Describe the type of fire in short, concise keywords (e.g. electrical equipment set on fire in an office).
- iii. How much burns? Explain the extent of the fire (e.g. one room, several rooms).
- iv. What dangers? Please inform us as exactly as possible of the number of injured; if necessary, provide information on particular hazards.
- **iv. What dangers?** Please inform us as exactly as possible of the number of injured; if necessary, provide information on particular hazards.
- v. Waiting for queries Do not hang up immediately, there may be questions or instructions. If possible, stay within range of the phone from which you called (enter mobile phone number if

necessary). Expect, if possible without danger, the emergency forces for the purpose of specific briefing.

The building is partly equipped with a fire alarm system. The BMA performs the following tasks:

- to detect fires as early as possible
- to inform the assisting body (e.g. the fire brigade) in good time
- to warn people inside the building
- Control fire protection device
- to enable the fire brigade to access the building and quickly locate the scene of the fire.

If the fire alarm system is triggered, the washing protection must also be informed. In the event of an alarm, the security guard immediately obtains an overview of the situation on site

## 2.9 Observing alarm signals and instructions

- When the alarm signal sounds, leave the building and go to the collection point.
- Persons in the surrounding area (also toilets, etc.) are to be warned.
- Until the arrival of the fire brigade, the instructions of the security guards and the employees entrusted with fire protection tasks must be followed.

## 2.10 Bring to safety

In the event of fire, the main hazard emanates from fire smoke due to its toxic, corrosive or suffocating effect. It is therefore essential to close the doors (never lock them) when leaving hazardous areas in order to avoid further smoke.

- Stay calm!
- Immediately leave the danger area via the marked escape route.
- Help disabled and injured people. If it is not possible to carry out rescue measures without
  endangering oneself, the arrival of the fire brigade must be waited for and the corresponding
  information passed on to the rescue services.
- If escape routes are blocked, you should make your presence felt at the nearest possible building opening. Doors are to be closed, if necessary the penetration of fire smoke is to be prevented with moistened cloths.
- Heavily smoky rooms have to be left bent over or crawling.
- In the case of evacuation measures, the fire protection assistants see Fire Protection Regulations - C - are responsible for the respective evacuation areas for checking whether there are any persons left behind (e.g. in WCs and adjoining rooms) and for carrying out initial extinguishing attempts if necessary.
- Within the framework of your event, the event managers will take care of the necessary evacuation.
- After leaving the danger area, the collection point must be visited.
- If the complete evacuation of a building area cannot be safely excluded, this must be reported immediately to the fire brigade or the internal fire protection personnel.

## 2.11 Attempting to delete

- Immediately fight incipient fires with the fire extinguishers available. Only start the fire
  extinguisher at the source of the fire and hold it vertically. The instructions on the fire
  extinguishers must be observed.
- Do not hold the full extinguishing jet in the middle of a fire; there is a danger of burning substances drifting apart and thus increasing the size of the fire.
- If possible, fight the fire with several fire extinguishers at the same time. This is more successful than using fire extinguishers one after the other.
- Only carry out extinguishing attempts without endangering your own person, pay attention to retreat. (Attention! If no open flame is visible, the oxygen is no longer sufficient to breathe.)
- Remove flammable objects from the danger area of the fire as far as possible and without danger.
- In the event of fires on electrical systems, these must be disconnected from the power supply.
- Continue to observe source of fire, beware of reignition!
- Fire barriers, windows and doors shall be closed.
- Extinguished fires must also be reported so that reignition can be ruled out and a cause analysis can be carried out.

## 2.12 Special rules of conduct

- These fire safety regulations apply to all persons staying in the buildings or on the premises of the HUB.
- The supervisors are responsible for the complete distribution of and instruction in the fire safety regulations in their areas.
- Specific fire protection measures have been defined within the framework of preventive and defensive fire protection for particularly valuable material assets (cultural assets).
- An evacuation exercise shall be carried out at intervals of not more than 3 years.

## 3. Fire protection regulation DIN 14096 - C

## 3.1 Introduction

The employees of the HUB are responsible for reporting fires and fighting incipient fires in accordance with the principle "human rescue before fire fighting". Fires that go beyond an incipient fire are fought by the alarmed external rescue forces (fire brigade).

In addition, persons entrusted with special fire protection tasks are deployed (fire protection officers, fire protection assistants). In the event of an evacuation alarm, the persons responsible for conducting courses, etc. are responsible for requesting the participants of the course to leave the building and pointing out the nearest escape route.

## 3.2 Fire prevention

## Tasks of the organizational unit:

The organizational unit is responsible for compliance with fire protection regulations and the organization of fire protection.

- Appointment/designation and instruction of fire protection personnel as well as the initiation of their training measures.
- The heads of the organisational units are responsible for compliance with and enforcement of fire protection regulations. You can transfer tasks to the managers of subordinate organizational units.
- The heads of the organizational units are supported by the fire protection officer in assuming responsibility and advised by the technical department's preemptive fire protection department (fire protection officer).
- The supervisors in the service must ensure that the employees are instructed once a year on the measures to be taken to combat fires and explosions and on how to behave in the event of danger. When hiring employees, they must be made aware of compliance with the fire protection regulations.
- Part B is made known to all employees and students in a suitable form (e.g. within the framework of initial or annual instruction).
- Persons who carry out work in the organizational unit on behalf of the HUB shall be notified by the responsible service superiors of the relevant provisions of the Fire Protection Regulations and obligated to comply with them.
- Regular organisation of evacuation exercises (at least every three years, unless more frequent exercises result from the risk assessment as a measure) and organisation of fire protection exercises.

## **Tasks of the Technical Department:**

The technical department is responsible in particular for:

- Technical consulting of the organizational unit in fire protection matters.
- Maintenance of the operational safety and functionality of the structural facilities as well as the lightning protection and telecommunications equipment (insofar as this is under the control of the technical department).

- Building-specific preparation, updating (e.g. in the case of conversions), distribution and installation of notices, plans, notices, safety and health markings, etc. in the buildings with which visitors, employees, external companies, fire brigades and other safety, rescue and auxiliary services are informed.
- Required installation as well as renewal and supplementation of alarm and safety equipment (if under the control of the technical department). The required required fire protection equipment marked in accordance with the regulations must be available in easily visible and accessible places in and on the building structures. The safety marking must meet the requirements of ASR 1.3 Safety and health marking. Procurement, replacement and maintenance of portable fire extinguishers and permanently installed and / or mobile alarm devices; The equipment with portable fire extinguishers must be adapted to the respectively valid regulations taking into account the actual use and fire hazard.
- Annual inspection of risers, hydrants, fire extinguishing systems and inspection of fire
  extinguishers every two years. A maintenance contract must be concluded with an appropriate
  company for this purpose.
- Functional testing of both electromechanical and mechanical smoke extraction systems.
- Inspection of transportable and stationary electrical equipment in accordance with DGUV Regulation 3 by a competent person.
- In the winter period the caretakers have to keep the manhole covers of the hydrants in the ground area free of snow and ice.
- Immediate notification of the external companies commissioned by it of the behaviour in the event of fire and compliance with the relevant safety regulations for welding, soldering or cut-off work (permit procedure insofar as the Technical Department has the power of disposal).
- Fire brigade plans and running maps are kept available at the security guard, where documents relevant for the fire brigade are kept ready.
- Control, monitoring and verification of the ongoing training as well as the instruction of the security guards and caretakers working in their area of responsibility to de-renrenren or about the tasks to be performed in the event of a fire. The tasks can also be specified by an instruction.

The necessary documents shall be prepared in cooperation with the organisational unit and, where appropriate, the fire safety officer, the fire brigade or the safety officers.

## Fire protection officer:

The tasks of the fire protection officer are based on the Berlin Fire Protection Principles, DGUV Information 205-003 and must be listed in the respective order letter or contract.

The tasks include in particular:

- in the case of several organisational units, coordination of all overarching fire protection regulations as well as the alignment of the fire protection regulations taking into account existing fire protection concepts,
- Participation in the training of the local fire protection personnel,
- Definition of evacuation sections and evacuation procedure.
- Participation in the regulations to be drawn up by the authorities, institutions, etc. using the
  equipment for the salvage of important or other movable objects, documents, money or
  valuables, which exclude the endangerment of persons,
- the cooperation in the investigation and evaluation of fire causes, if necessary, and the consultation of the organizational unit in dealing with the specific dangers of "cold fire spots"

- Defects found must be reported to the property management immediately. For the building, a fire protection book shall be kept in which the inspections carried out and the deficiencies found as a result are recorded, as well as the reasons for their rectification.
- Develop proposals for measures to improve fire prevention and implement them. Notify the house administration immediately of any defects found in the structural fire protection.

# Fire protection assistants:

The number of fire protection assistants required is determined within the framework of a risk assessment. Fire safety assistants must take part in further education/training measures at regular intervals.

The general tasks of the fire protection assistants include supporting the fire protection officer in preventive fire protection (e.g. reporting damage to fire protection equipment, obstructed escape and rescue routes or fire loads in the corridors).

Fire safety assistants fight incipient fires. The tasks of the fire protection assistants in the event of an alarm are defined as follows.

- arrange, support and control the evacuation of their evacuation area.
- have authority to issue instructions including to superiors in the event of eviction.
- immediately stop all work and request the persons in their area of responsibility to leave the building immediately and visit the collection point.
- make sure that no unnecessary objects are taken along by the fugitives.
- ensure that all persons have left the clearance area.
- bring the fleeing persons together at the collection point and inform them about the further course of events.
- report missing or injured persons to the rescue services. Evacuation areas that could no longer be controlled for persons left behind due to the effects of fire and smoke must also be reported to the rescue services.

# 3.3 Message and alarm sequence

If a fire alarm is triggered via the fire alarm system or fire detector/house alarm, the security guard must immediately carry out an on-site investigation. If the guard leader does not receive a response within 3 minutes that the alarm is a false alarm, the main detector of the fire alarm system must be activated (alarming the fire brigade).

During the duration of an exercise or in the event of a fire until the fire brigade or police take over the place of deployment, the fire brigade, supported by the security guards, exercises the house rules, and they are authorized to issue instructions and orders to the other employees.

## Evacuation alarm:

#### Alerting agent:

House alarm triggered by automatic fire alarm system/fire detector/house alarm or by "fire detectors

## Alarm signal:

Long-lasting beep

The alarm signal obliges all persons to leave the building and go to the collection point (XXX). The fire brigade cancels an actual alarm situation.

## 3.4 Safety measures for persons, environment and material assets

- The fire protection assistants must arrange for the complete evacuation of their area of responsibility.
- Particularly valuable cultural assets are considered in the context of preventive fire protection.
- After assessing the situation on site, the security guards or the rescue forces that have arrived arrange for technical equipment (e.g. mechanical smoke extraction dampers) to be put into operation.

## 3.5 Extinguishing measures

Extinguishing measures are to be understood by HUB employees as fighting incipient fires. The focus here is on personal protection.

Until the arrival of the fire brigade, the security guards shall, as far as possible in coordination with the responsible official superiors present on site, direct the emergency response.

# 3.6 Preparing for the deployment of the fire brigade

The security guard ensures the arrival of the fire brigade on the property. To this end, he shall keep the necessary access roads and entrances to the fire site clear, including the water intake points and the areas for the fire brigade. Existing site plans and necessary keys are to be kept ready and handed over to the fire brigade on arrival and briefed on the situation.

In principle, all fire protection and rescue facilities, escape and rescue routes, areas for the fire brigade, etc. must be kept free and ready for use at all times.

Emergency measures include:

- Clear access to fire site and surroundings
- Keep free areas for the fire brigade and extraction/feed points for the fire-fighting water supply
- assign controllers
- provide suitable contact persons for the fire brigade
- · Provide necessary information and materials
- Enable accesses.

## 3.7 Aftercare

Emergency situations can place different demands on the appropriate follow-up. Basically the following aspects are in the focus:

- Information of the relevant departments (internal, external)
- Elimination of the effects of the emergency situation
- Restart of university/teaching operations
- Causal research.

The following measures, which concern the end of the emergency situation and follow-up measures, are to be examined and if necessary initiated by the responsible official superiors in coordination with the presidency:

- Safeguarding / blocking off dangerous rooms / objects (e.g. fire brigade)
- First damage assessment and evaluation in connection with the reporting and reporting procedure

- Securing and safekeeping of salvaged operating resources
- initiate redevelopment
- root cause analysis
- corrective actions
- Determination of the expected duration of the closure of the affected area
- Informing employees/media in compliance with internal communication requirements.

The rooms may only be re-entered after they have been cleared by the fire brigade.

