# Fire Safety Regulations for the Albert-Ludwigs-University of Freiburg



**Version June 2006** 



# FIRE SAFETY REGULATIONS

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# Coming into effect:

The fire safety regulations of the Albert-Ludwigs-University of Freiburg i. Br. in the version of June 2006 are taking effect on the 01.07.2006 and replace the former regulations.

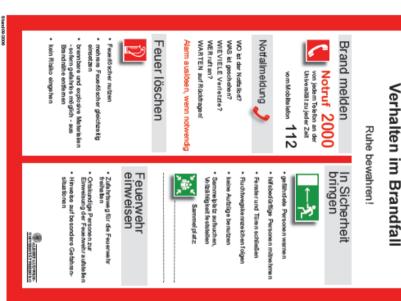
Freiburg, June 2006

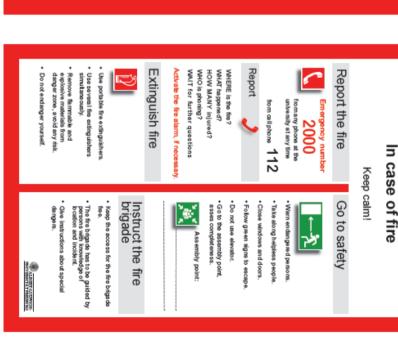
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# Fire safety regulations - acc. to DIN 14096 part A





# Fire safety regulations – acc. to DIN 14096 part B

The fire safety regulations of the Albert-Ludwigs-University of Freiburg i. Br. serve for preventive fire protection and regulate behaviour in case of a fire. The adherence to the specified rules serves to prevent fire catastrophes and limit damages.

The fire safety regulations are binding for all employees as well as all persons staying on the university premises and in the buildings.

# **General duties**

All members of the university are obligated to support all measures serving the fire protection and to contribute to the prevention of fires by means of greatest caution.

When starting to work at the university, all employees receive a copy of the fire safety regulations and acknowledge the receipt. A suitable number of copies of the fire safety regulations will be handed out to outside companies or at least to the superior for briefing.

All students have to be informed of their duties when receiving their enrolment documents. These instructions have to specify where the fire safety regulations can be looked at.

# Area of application

The fire safety regulations are valid in all buildings, facilities, and other sites of the Albert-Ludwigs-University of Freiburg i. Br.

# Contraventions

Violations of the arrangements of the fire safety regulations can result in consequences as to public services law or employment law or even criminal law.

# 1. Fire prevention

# Fire, open light, and smoking ban



Observe the smoking ban! Smoking is categorically prohibited in all university buildings.



In addition, open light (e.g. candles) and fire are categorically prohibited in offices and underground parkings.

Open fire (barbecues, bonfires, torches, fireworks and similar) is categorically prohibited on all roof terraces.

In case of events outside the building, a sufficient safety distance has to be observed and fire preventing measures have to be taken.

# Inflammable and explosive substances



Inflammable, oxidizing and explosive substances must be stored in laboratories, workshops and other workrooms only in the amounts required for the progress of work and must not exceed the daily requirement.



If larger quantities of inflammable liquids are needed in a workroom/laboratory, storing in safe cabinets acc. to DIN EN 14470-1 is necessary.



The prohibitions of storing together inflammable, oxidizing and explosive substances as well as the prescriptions concerning their packaging and storing are to be observed.

Wastes that can be self-igniting (wastes from reaction, oil-impregnated cleaning rags, etc.) must be stored in suitable sheet metal cases until disposal.

Refrigerators/deep freezers used for storing inflammable liquids or explosive substances are to be explosion-proof models. The refrigerators/deep freezers have to be labelled as such clearly and permanently.

### Compressed gas cylinders



Compressed gas cylinders must be stored in workrooms only in the maximum size and number that is absolutely required for immediate use. They must be secured against toppling over, the main valve of the gas cylinder must be closed.

Compressed gas cylinders must be transported and stored only with the protective cap screwed on. The gas hoses have to be checked at regular intervals for brittle and porous places and replaced immediately if necessary. The workrooms where the compressed air cylinders are stored have to be marked with the corresponding warning sign.

Compressed gas cylinders must be stored in specially designed cabinets acc. to DIN 12925-2 or in special storage rooms. Marking with the corresponding warning sign is required.

### Electrical devices

Electrically powered devices and systems have to be maintained according to the prescriptions and comply with the VDE (German Association for Electrical, Electronic & Information Technologies) regulations. The use of damaged or unsecured devices is prohibited.

Electrical devices causing a fire hazard due to heat transmission (e.g. electric heaters, cooking devices, heating baths, coffee makers) that cannot be excluded, have to be operated on a non-combustible, heat-resisting pad. They have to be mounted in such a way that even in case of excess heating, objects in the vicinity cannot be ignited and the adjacencies have to be kept free from highly combustible objects and liquids. Only heaters and cooking devices equipped with cutout switches to prevent overheating must be used.

Damages at electric systems, devices and gas pipes (e.g. identifiable by the formation of sparks, scorchings, odour of scorching or gas) and at the supply and waste disposal lines must be repaired by experts only. These damages have to be

immediately reported to the technical building management (Technisches Gebäudemanagement) (mo.-thur. 7:30-15:30 o'clock and fr. 7:30-12:00 o'clock under tel. 203-3342 or outside of these times tel. 203-2266) or to the responsible caretaker.

### Bunsen burner

Bunsen burners and similar facilities must be connected only with tubes tested by the DVGW (German technical and scientific association for gas and water). After use, the gas valves have to be closed immediately. At the Bunsen burner itself, stop cocks or valves for the gas to be burnt are prohibited.

### **Working with heat**

Works involving fire hazards such as burning, cutting, welding, soldering, and separating as well as works with hot masses are subject to authorization and require a Heißarbeitserlaubnisschein (permit to work with heat), which has to be issued by the responsible person. In general, these works must be carried out only by experts taking into account the particular safety precautions (e.g. screening and supply of fire extinguishers). After these works are completed, the workspaces have to be checked for smouldering fires at suitable intervals.

# 2. Spreading of fire and smoke

Protective separating doors against fire and smoke have to be kept closed at all times. It is strictly forbidden to keep these doors open using wedges, pieces of rope or objects, etc. At the end of the business day, the fire doors equipped with automatically releasing locking devices have to be closed.

Inflammable materials (packaging material, boxes etc.) must not be stored on escape and rescue routes. In addition, in all workrooms the fire load, i.e. the quantity of inflammable material has to be kept as small as possible.

# 3. Escape and rescue routes



Rescue routes and emergency exits have to be visibly signposted and kept clear all the times. Doors along escape or rescue routes must not be locked or blocked. It must always be possible to open them easily from within. Safety signs must not be covered or blocked.

Each employee must be familiar with the escape and rescue routes. They are indicated in the escape and rescue plan posted up in the corresponding building. Rescue routes and spaces for the fire brigade have to be kept absolutely free.

# 4. Detecting and extinguishing devices

### Fire alarm and extinguishing devices



Fire alarm devices (fire, smoke and heat detectors, telephone, etc.), fire extinguishing devices (fire extinguishers, wall-mounted hydrants, safety showers, fire blankets, etc.) and first aid devices must be accessible all the time. The locations of the fire alarm, fire extinguishing and first aid devices are indicated in the posted up escape and rescue plans.



Each employee is obligated to make her/himself familiar at her/his place of work with the locations and the operation of the fire alarm, fire protection and fire extinguishing devices. She/he is also obligated to use them in case of emergency. If necessary, the house alarm has to be triggered by actuating the locally available alarm system (pushbutton alarm, manual siren) to alert the fire brigades.

### Fire practice

A sufficient number of employees has to be instructed in the handling of fire extinguishers, e.g. by means of periodic participation in the practical fire extinguishing drills offered by the Stabsstelle Sicherheit (executive administrative office for security). For further information, please contact the Stabsstelle Sicherheit under sicherheit@uni-freiburg.de.

# 5. Behaviour in case of fire

When a fire is detected:

- Keep calm!
- > Avoid inconsiderate actions, do not panic.
- Alert the fire brigade, report the fire (irrespective of the size of the fire and without waiting for the success of extinguishing attempts).

# 6. Reporting a fire

Anyone who detects fire, smoke, smell of burning or other dangers (e.g. explosion, environmental accident, etc.) has to alert the fire brigade immediately.

## Emergency telephone code



Dial the **emergency telephone code 2000** from any telephone of the university network to alert the Rettungsleitstelle (rescue coordination centre) of the fire brigade. This emergency telephone code can be used to report any kind of emergency (fire, accidents, etc.).

You can also alert the fire brigade with the **emergency telephone code 0-112** when using an Amtsapparat (exchange line telephone).

### Information to be reported

When calling the fire brigade by telephone, give the following information:

WHERE is the emergency located (building, floor, room)? WHAT happened? HOW MANY injured? WHO is phoning? WAIT for further questions!

# 7. Observe alarm signals and instructions

When the alarm signal is emitted, immediately leave the area in question.

After the alarm, the following **immediate measures** are to be taken:

- Keep the access routes free for the fire brigade. All gates, bars and other barriers are to be opened, all lanes and access paths are to be free.
- > Wait for the fire brigade and guide them immediately.
- Inform the fire brigade of particular potential dangers. Important are for example details on the storing of inflammable liquids, explosive substances, other hazardous materials and compressed gas cylinders or radioactive substances.

After the arrival of the fire brigade, only their instructions are to be observed. On site, the fire brigade is in charge. Absolutely obey the instructions of the officer-in-charge.

After a fire, the building or the affected area must be entered only after it has been cleared by the fire brigade **and** the Stabsstelle Sicherheit.

# 8. Go to safety



- The rescue of people has priority over the rescue of real assets!
- Warn endangered persons.
- Immediately leave the dangerous area using the marked escape routes.
- If the escape route is blocked or full of smoke, draw attention to yourself at the nearest window.



- Stoop to leave rooms filled with smoke.
- Take along injured persons or persons in need of help.
- In case of a fire, do not use the elevators.
- Go to the assembly points and determine if all are present to be able to find out about people still in the building.

# 9. Attempts to extinguish a fire

### **Extinguishing incipient fires**

### Take no risks!



Immediately extinguish incipient fires. Use the fire extinguisher at the location of the fire and call others to help. If possible, use several fire extinguishers simultaneously.

Use carbon dioxide or powder extinguishers to extinguish electrical equipment (up to 1000 V). Keep a safety distance of 1 m.



Do not use CO<sub>2</sub> fire extinguishers when metal is burning! Exclusively use powder extinguishers with dry powder for burning metal.

On principle, extinguish burning liquefied and compressed gases escaping from compressed gas cylinders by closing the cylinder valves (interrupting the gas supply). If this immediate measure cannot be carried out without risk (e.g. in case of fires in the vicinity of the cylinder valves), extinguish the fire by means of powder or carbon dioxide extinguishers so that the cylinder valves can be closed immediately after the fire has been extinguished.

Caution: compressed gas cylinders exposed to fires are to be put out of operation and marked accordingly.

Keep persons whose clothes are on fire from running away and make them lie down. Cover and smother the flames by rolling on the floor and with blankets or jackets. If available, use emergency showers and fire blankets.

### Fire classes



Burning of solid matters, mainly of organic nature that normally burn with flames and blaze

e. g. wood, paper, coal, straw, textiles, car tires



Burning of liquid or liquefied matters

e. g. fuel, oils, greases, varnishes, resins, waxes, tar, ether, alcohol, synthetic materials



Burning gases

e. g. methane, propane, hydrogen, acetylene, town gas



Burning metals

e. g. aluminium, magnesium, lithium, sodium, potassium and their alloys

### Fire extinguishers



All fire extinguishers and other fire extinguishing devices (e.g. emergency showers) are to be maintained in an orderly and functionally reliable state. The responsible person for the area has to ensure this. Deficiencies are to be reported to the Stabstelle Sicherheit immediately.



Emptied or used fire extinguishers have to be filled immediately. For this purpose, inform the Stabsstelle Sicherheit (sicherheit@uni-freiburg.de).

### 10. Particular code of conduct

In case of emergency, everybody is obligated to help.

Supply lines for inflammable, explosive, unhealthy, toxic and caustic gases or liquids as well as vapour and compressed air conduits have to be shut off in all areas affected or immediately endangered by the fire if they are located in the direction of the escape route.

In case of fires in special laboratories or rooms, inform the responsible laboratory manager immediately.

In buildings equipped with  $CO_2$  fire extinguishing system, your life is in danger as soon as the alarm is triggered (horn). Leave the building at once.

### 11. Final clauses

Each fire is to be immediately reported to the Stabsstelle Sicherheit. The locations affected by the fire must be entered only after the fire brigade has cleared them. Fire extinguishing devices have to be made ready for use without delay. Electrical systems and equipment have to be checked by an electrician before they are put back into service.

These fire safety regulations are internal rules of the university and do not release from the obligation to observe and comply with other occupational health and safety rules and general technical rules. The fire safety regulations can be amended for certain fields if necessary.