

NTNU	Fire protection	Prepared by	Number	Date	
		the Technical Division	HMSR-06	01.01.2008	
HSE		Approved by the Rector	Page 1 out of 7	Replaces 01.12.2006	

## 1. Objective

The objective of this set of guidelines is to ensure that all NTNU buildings and technical installations are secured against fire. Fire preventive measures must be implemented to protect life, health and property.

## 2. Scope

This set of guidelines applies to all units at NTNU, in both owned and leased buildings.

## 3. Responsibilities and authority

The line manager is responsible for organising the activities in such a way that fires do not occur. This includes ensuring that the necessary safety measures are taken, that training and fire drills are implemented, and that someone is appointed to carry responsibility for each storey.

The Technical Division is invested with responsibility for all technical and organisational fire prevention measures throughout NTNU.

## 4. Definitions and abbreviations

Buildings that are subject to additional fire precautions:

- Buildings designed to hold a large number of people, where a fire may involve a greater than usual risk of loss of human life: auditoriums, meeting rooms, canteens, schools etc.
- Buildings, constructions, lay-ups etc. that due to their condition or the activities they hold are considered particularly prone to fires or potential fires, or where a fire may have great consequences.
- Buildings of particular value to society in relation to cultural history and similar: Museums and collections.

Active fire prevention measures: Fire alarm installations including smoke detector, sprinkler systems, manual fire extinguishing equipment.

Passive fire prevention measures: Solutions related to building structures and features such as fire compartmentalisation and fire doors.

## 5. Fire protection

The university's buildings are defined as buildings that are subject to additional fire precautions. This emphasises the vital importance of well organised fire prevention, of training, and of fireproofing and documentation.

### 5.1 Centrally organised fire protection

The Technical Division carries the central responsibility for fire protection at NTNU, whereas the local responsibility rests on each line manager. The Technical Division organises the fire manager, NTNU's emergency preparedness group, someone responsible for each building in situations of fire or catastrophe, central fire protection training and NTNU's documentation in relation to fires.

NTNU	Fire protection	Prepared by	Number	Date	
		the Technical Division	HMSR-06	01.01.2008	
HSE		Approved by the Rector	Page 2 out of 7	Replaces 01.12.2006	

### 5.1.1 Fire manager

The fire manager must ensure that NTNU has a functioning fire protection organisation; lead this organisation; and see to it that those who have been dealt specific tasks understand and master these tasks. Thus, the fire manager must:

- Stay informed about relevant laws and regulations and have the necessary knowledge about fire safety and fire fighting; notify the HSE section of any changes to relevant laws, regulations and requirements
- Establish and maintain central guidelines within fire protection
- Establish and maintain NTNU's fire documentation and arrange for system auditing of the fire documentation
- Participate during the municipal fire service's inspections, and ensure that orders and recommendations in the inspection reports from the fire service are assessed and followed up
- Take responsibility for the technical documentation and checking of all of NTNU's technical fire protection installations and ensure that these are in working order at all times
- Ensure that received deviation reports are distributed internally to the Head of Emergency Preparedness [Beredskapsleder], the Head of Section for Building Services and Maintenance [Seksjonssjef Bygningstjenester], the Works Manager for General Services [Driftsleder Fellestjenester] and the person in charge of fire installations
- Ensure that uncovered needs in terms of additional technical and organisational fire protection measures or renovation of old ones are reported to the leader of the Technical Division
- Have knowledge about and training in the use of the substance index
- Oversee that guidelines for fire protection are obeyed locally, and that the units appoint someone with the overall responsibility for each storey in the event of a fire/disaster
- Oversee that the units have obtained the necessary permissions in connection with storing, using and producing inflammable and explosive items/substances, and that the units are familiar with approved storage areas for inflammable and explosive items/substances
- Act as the official employer and authorise external firms to perform hot work when the line manager does not possess sufficient competence to give a permit for the work to be conducted [see guidelines for hot work](#)
- Ensure that fire drills are performed, assess the results of the drills, and ensure that any uncovered shortcomings are followed up
- Ensure that all those with responsibility for their storey or entire building during fire/disaster are given the necessary training. Ensure that those responsible for their storey or building have vests that identify them as such
- Prepare, update and ensure access by all units to various notices about fire protection (if original fire instructions on glossy paper are needed, please contact the Technical Division)
- Assist the site leader in the event of a fire or disaster situation

NTNU	Fire protection	Prepared by	Number	Date	
		the Technical Division	HMSR-06	01.01.2008	
HSE		Approved by the Rector	Page 3 out of 7	Replaces 01.12.2006	

### **5.1.2 NTNU's emergency preparedness group**

The primary task of the emergency preparedness group is to secure the values of the university's property in relation to the eventuality of abnormal events occurring, and also winter maintenance of the university's roads and pavements. The emergency preparedness group's members are qualified within all of the Technical Division's areas of responsibility. Two people appointed by the manager of the Technical division chair the emergency preparedness group.

The members of the emergency preparedness group can only be summoned by the leaders of the emergency preparedness group, and by NTNU's security staff.

A closer description of the emergency preparedness group's tasks is found in a separate set of Technical Division instructions.

### **5.1.3 Individual responsible for each building during fires and disaster situations**

This is mainly the janitor for the building in question. If the building's janitor leaves the area he is responsible, he must hand over the task to somebody else, even during short absences.

In the event of a fire or disaster situation, the primary task of the individual responsible for the building is to alert and be at hand for the municipal fire brigade. The individual responsible for the building is identifiable by the yellow fire protection vest he or she is wearing. He or she must ensure that nobody enters the building before the leader of the emergency site (police or fire brigade) gives the all-clear signal.

A closer description of the tasks of the individual responsible for each building in the event of a fire or disaster situation is found in a separate set of Technical Division instructions.

In addition to these tasks, the individual responsible for each building must

- Ensure that an overview of the individuals responsible for each storey received from the units is available in the event of a fire/disaster situation
- Contact the fire manager and clarify with him or her measures to be taken in situations requiring that active safety measures be suspended

### **5.1.4 Fire protection training**

All staff and students using a facility/building that is subject to additional fire precaution must be given fire protection training and take part in regular fire drills adapted to the risk associated with the activities in question. Newly appointed staff and substitutes must be given adequate information about how to behave in the event of a fire before they are put to work.

NTNU	Fire protection	Prepared by	Number	Date	
		the Technical Division	HMSR-06	01.01.2008	
HSE		Approved by the Rector	Page 4 out of 7	Replaces 01.12.2006	

The Technical Division is responsible for NTNU's framework agreement with the supplier of fire protection training. The following elements must be included in the fire protection training:

- NTNU's HSE principles; central and local guidelines within fire protection
- Practical organisation of central and local fire protection (Responsibilities and tasks, local responsibility and organisation, including individuals responsible for each storey)
- Particular risks associated with the unit, and emergency plans
- Escape routes; meeting point; active and passive fire protection measures installed in the building.
- Usefulness and anticipated effect of preventive technical and organisational fire protection measures
- The physical and chemical properties of fires
- How to behave in the event of a fire; basic training in the use of extinguishants; evacuation of people; immediate measures to prevent the spreading of smoke and fire

### 5.1.5 Fire documentation

The Technical Division is responsible for establishing and maintaining NTNU's fire documentation. The fire documentation is described in the fire module of the Lydia software.

The fire documentation is to be prepared in accordance with § 2.1 in the Regulations on fire prevention measures and supervision [Forskrift om brannforebyggende tiltak og tilsyn] and must include:

- Documentation relating to the buildings
  - General data about the buildings
  - Documents from building applications
  - Documentation about technical design
  - Changes made to the buildings
- Technical documentation and inspections
  - Overview of service agreements entered into by the Technical Division
  - Fire alarm installation
  - Emergency lights and guiding systems
  - Manual extinguishing equipment
  - Sprinkler systems
  - Lift
  - Electrical installations/wiring
- Fire prevention drawings
- Fire inspection reports
- An overview over who is responsible for each storey in the individual unit must be available from the caretaker of the relevant building
- NTNU's substance index ([NTNU's stoffkartotek](#)) NTNU's substance index provides an overview of chemicals and gases with inflammable and explosive properties

NTNU	Fire protection	Prepared by	Number	Date	
		the Technical Division	HMSR-06	01.01.2008	
HSE		Approved by the Rector	Page 5 out of 7	Replaces 01.12.2006	

## 5.2 Local fire protection

### 5.2.1 The responsibilities of the line manager

In order to reduce the risk of fire breaking out, each line manager must:

- Ensure that a risk assessment is conducted of the activities at his or her unit in relation to the fire protection of persons, activities and equipment
- Prepare local emergency preparedness plans in accordance with NTNU's central emergency preparedness plan and separate risk assessments
- Organise the activities/premises in such a way that fire does not break out, and so that safety measures have the intended impact
- Ensure that fire drills for the unit are organised, implemented and evaluated in cooperation with the fire prevention leader and the individuals responsible for the separate storey/s, and that preventive and corrective measures are implemented
- Ensure that all employees are trained in fire protection. Students must also undergo adequate training in fire protection. Newly appointed staff and substitutes must be provided with sufficient information about conduct in the event of a fire before they are put to work. The unit must maintain an overview of who has completed fire protection training.
- Appoint the individuals responsible for the different storeys; these should be individuals who spend most of their working hours in the building. Ensure that everybody responsible for a storey is equipped with the fire prevention identification vest.
- Ensure that the unit has an overview over the individuals responsible for the different storey at any given time, and information about which building and which storey is the responsibility of each of these individuals. The overview must be sent to each caretaker responsible for the relevant buildings.
- Ensure that the unit has obtained the necessary permissions in relation to storing, using and producing inflammable and explosive items/substances, and that the units are familiar with approved storage areas for inflammable and explosive items/substances
- Ensure that the fire manager is notified about all conditions relevant in terms of fire protection, either via email or on NTNU's [form for reporting deviation](#)
- Assist the fire manager in keeping NTNU's fire protection documentation updated
- Ensure that the unit has the necessary operation and maintenance agreements for its equipment and installations
- Ensure that work procedures involving heat are conducted in a safe manner ([hot work](#), and that the necessary permits are obtained before any embarking on hot work)
- Ensure that measures for separate fire protection are implemented and followed up when active safety measures are suspended

NTNU	Fire protection	Prepared by	Number	Date	
		the Technical Division	HMSR-06	01.01.2008	
HSE		Approved by the Rector	Page 6 out of 7	Replaces 01.12.2006	

## 5.2.2 Individuals responsible for each storey during fires and disaster situations

For all buildings owned or hired by NTNU housing activities under the auspices of NTNU, at least two persons must be appointed as responsible for each storey in the event of fire or disaster situations. Where several units share the same storey of a building, each unit can either appoint its own individuals responsible for the storey, or the units can coordinate their appointments.

The individuals responsible for each storey must identify a meeting point outside the building where everyone within their area of responsibility is to turn up in the event of a fire or disaster situation. The meeting point must be far enough from the buildings to not obstruct any emergency vehicles.

The individuals responsible for each storey must provide staff and/or students within their area of responsibility with essential fire protection information twice a year. This includes familiarising all staff and students in the area with escape routes, the location of fire alarms, extinguishing equipment, emergency door openers and the meeting point outside the building. During these sessions, the individual/s responsible for the storey must wear the fire prevention's vest of identification. They must notify the line manager when the fire protection information has been imparted.

In the event of a fire/disaster situation the individuals responsible for the storey must

1. Put on the fire protection identification vest
2. Evacuate all persons within their area of responsibility; if possible, obtain an overview over individuals who had to stay behind
3. In the even of smoke on the site of emergency: suppress hints of public panic; locate and indicate the safest escape route as soon as possible
4. Ensure that everyone is pulled away from the building and congregates around the agreed meeting point
5. Report irregular conditions to the person responsible for the building during fire/disaster situations

## 5.3 Fire protection when active safety measures are suspended

Certain activities may require that active safety measures have to be suspended. Such activities include welding, also welding of flooring; experiments that generate smoke or steam; painting/varnishing in small rooms; dusty work in connection with building operations; drilling/sawing in concrete; using an angle grinder; exhaust from cars etc. Units planning to perform such work must always contact the caretaker for the building when suspension of the active fire protection measures is required. Only personnel from the electrical group of the Technical Division are authorised to disconnect active fire protection measures.

The fire manager and the caretaker for the relevant building must take a decision about extraordinary measures such as increased surveillance, additional extinguishing equipment, open escape routes, a fireguard etc. The unit/s in question must comply with such measures.

NTNU	Fire protection	Prepared by	Number	Date	
		the Technical Division	HMSR-06	01.01.2008	
HSE		Approved by the Rector	Page 7 out of 7	Replaces 01.12.2006	

If active fire protection measures are not in operation due to errors or defects that have occurred, measure must be considered and implemented in a corresponding fashion.

Fire alarms from most of the university's buildings reach the municipal fire brigade automatically. If the fire brigade is called out due to un-necessary alarm, i.e. that active safety measures should have been suspended/disconnected, the fire brigade will charge the university for the operation. Such charges must be paid by the unit that caused the fire alarm.

## 6. References

[Lov om vern mot brann, eksplosjon og ulykker med farlig stoff og om brannvesenets redningsoppgaver \(brann- og eksplosjonsvernloven\)](#) [Act relating to the prevention of fire, explosion and accidents etc.]

[Forskrift om brannforebyggende tiltak og tilsyn](#) [Regulations on fire prevention measures and supervision]

[Guidelines for hot work](#)

[Guidelines for reporting deviation](#)

[NTNU's stoffkartotek](#) / [NTNU's substance index](#)