University Administration
Facilities Office

Fire and evacuation routines in BioClinicum

This document is based on the general fire/evacuation alarm procedures prepared by Karolinska University Hospital but has been adapted to KI's activities in BioClinicum.

Introduction

An introduction to fire safety at the workplace must be completed by all new employees, current employees and students at KI who have their workplace in BioClinicum. This introduction must be documented in the designated KI template with this document as support. After the completed introduction, the person should understand how fire safety is implemented at the workplace and be able to act correctly in the event of a fire/evacuation alarm. The responsibility for ensuring continuous fire safety introductions lies with the immediate manager, but the assignment can be delegated to a fire safety supervisor or fire safety monitor.

Fire safety at BioClinicum and its functions

Fire/evacuation alarm

There is a fire/evacuation alarm with smoke detectors that will detect an incipient fire.

A red LED indicator will always be lit on the smoke detector that has triggered the alarm. If the smoke detector is located above the false ceiling, the LED will illuminate on the indicator panel for concealed smoke detectors.

At the left, a sprinkler head; in the center, an indicator panel for a concealed smoke detector located above the false ceiling; and to the right, a regular smoke detector.

Meeting rooms on floors 3–5 have been equipped with speaking evacuation alarms supplemented with flashing lights, and the other areas are equipped with acoustic and optical alarm signals.

The evacuation alarm is designed so that it is automatically activated by the fire alarm and by activated sprinklers.

The evacuation alarm is activated on the floor where the fire alarm was triggered. In the event of an alarm on floors 3–5, the speaking evacuation alarm will also be activated in the entrance hall and adjoining conference rooms.

The fire alarm signals to the staff via alarm pillars in the corridors or other strategic location.
When the fire alarm sounds, the hospital guards will quickly come to the premises from which the alarm is sounding, and the rescue services will be automatically alerted.

Sirens and red/white flashing lights are activated on the floor in which the alarm was triggered.

Note! Some overhearing of the alarm may occur in the building. Always check the alarm pillars in the premises to verify that the fire alarm is on your floor. Fire procedure actions only need to be taken on floors where alarms have been triggered (flashing lights and sirens).

Note! The function that exists in NKS, with only white flashing lights in the event of a fire alarm in a nearby area, does not exist in BioClinicum.

Water sprinklers

Most of BioClinicum (apart from the Cyclotron, some switchgear rooms and elevator shafts) is protected by an automatic water sprinkler system. Each sprinkler head has a glass bulb ensuring that it only reacts to heat from a fire.
When the temperature around the glass bulb has reached 68 °C, it will break and about 80 litres of water per minute will spray from the sprinkler head. Only sprinkler heads affected by heat as described above will be activated. The water will be able to

limit the fire and thereby lessening the damage. However, the sprinklers activate later than the fire alarm and should primarily be considered property protection (as an extra protective measure if the staff is not able to put out the fire at an early stage).

Fire cell division

The floors in each building are divided into fire cells where each lab core is a separate fire cell, which will be able to contain the fire if the doors are closed. All evacuation stairwells, refuse/recycling rooms and technical rooms are separate fire cells as well.

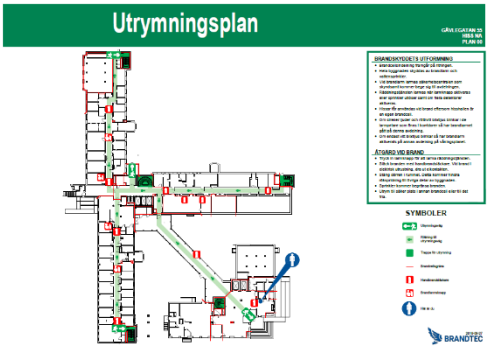
Example showing fire cell boundaries in BioClinicum.

Alarm procedures

Several evacuation plans are provided in each operational area. These provide information about fire-fighting equipment, evacuation and escape routes.

Next to one of the evacuation plans is also a red vest marked 'Incidentsamordnare' (Incident Coordinator). The vest is intended to facilitate cooperation between staff, guards and the rescue services/police.

Incident Coordinator vest



Evacuation plan

The fire alarm will provide early indication of smoke and heat generation. Reacting quickly provides very good chances to easily remedy the cause and, in the best-case scenario, extinguish an incipient fire. It is extremely uncommon to encounter a large fire immediately after a fire alarm.

The following actions should be taken in the event of a fire alarm:

- Gather at the place where the red vest is located.
- Someone in the group puts on the vest and becomes 'Incident Coordinator', with the task of leading the actions and cooperating with the guards and rescue services.
- The Incident Coordinator appoints a few employees to search the lab cores/premises for fire and to ensure that no one is still in the premises.
- If there are additional employees available, one should be sent to the other entrance of the lab core/premises to meet the guard in case they come in that way.
- Other people evacuate to the assembly area, which is **Akademiska stråket.**

The following actions should be taken in the event of a confirmed fire:

- If possible, try and put out the fire with a hand-held fire extinguisher or other fire-fighting equipment. In the event of a fire in electrical equipment, unplug the power cord if possible. *Also see the section below on particular risks associated with fires in laboratory premises!*
- Evacuate people in danger and close the door to the room, which will limit the spreading of fire and smoke in the lab core/premises. This applies whether the space is a separate fire cell or not.
- Push the alarm button/Call 112.
- Evacuate to the assembly area, which is **Akademiska stråket.**

In a fire, you may need to decide the order of priority in which you perform the actions above.

Particular risks associated with fires in laboratory premises

Because there can be several different chemicals in a lab, some of which may have hazardous properties, it is important to quickly assess the following before deciding to attempt to extinguish the fire:

- Are (to you) unknown chemicals involved in the fire?
- Are gas bottles involved in the fire or very close to it?
- Is there a lot of smoke in the space/room?
- Is the fire already large or has it spread to several places?

If the answer to any of these questions is YES – do not attempt to put out the fire!
Instead, try to shut the fire in as best you can and evacuate to the assembly area!

Note! Guards and Coor staff are also alerted immediately and will come to help you extinguish the fire. It is therefore important that the Incident Coordinator and one or more others can stay and meet these people and tell them if any of the above risks exist.

Handling of gas bottles or gas lines when fire

Unsecured gas bottles that are at risk of being affected by the fire, and which are not stored in the fire-rated cabinet intended for gases, should if possible be moved to a secure location provided this can be done without risk of injury.

Emergency shut-off valves for centrally supplied medical gases that supply each lab core are located inside operating technical spaces outside the short sides of the lab cores. Shut-off will be performed by guards or Coor staff and must be done in dialogue with the operating organization. The Incident Coordinator should therefore be able to announce whether it is okay to shut off the gas before evacuation continues to the reassembly area.