

General Information on Work Environment at the Division of Nuclear Physics

Applies to Employees and Visitors

The kitchen and coffee room

The lunch room in the B200 corridors is open to employees and visitors to Nuclear Physics. It is important that everyone keeps the lunch room clean and tidy. Support each other! If you put food in the fridge or freezer make sure it is labelled with your name. If the dishwasher is running, wash up by hand and put your things away.

For employees only: On the door of the coffee room there is a list of who is responsible for making coffee each week, and who will provide buns or cakes on Friday afternoon. These duties are shared equally between all those who work on corridor B200. During the working week, coffee and tea should be made by 3 p.m., and the dishwasher should be emptied. The person finishing lunch last should start the dishwasher. All coffee- and tea-making appliances must be fitted with a timer to avoid the risk of fire.

Door alarms

The exterior doors are locked, and are equipped with an alarm system. These doors may only be opened from the inside by pressing the button with a key symbol located beside the doors. If the doors are open for more than 90 seconds, an alarm is sent to a security company, which sends out a security guard. It is therefore important that locked doors are not held or propped open. Please contact the Department of Physics reception if you need to have the door open for a long period of time.

Fire

Fire alarms should always be taken very seriously. There is an escape plan on all corridors which must be studied carefully by every employee. This contains information on the locations of fire alarms, escape routes (smoke-filled routes should not be used), assembly points, fire-fighting equipment and other equipment. Think about how you can help others, for example students, in an emergency situation. In the case of fire or another kind of emergency you should take the following actions.

1. **Save people** in immediate danger.
2. **Ring the emergency services, tel. 112.** (Dial '0' first to get an outside line if calling from an internal phone). Tell them where the fire is, whether people are trapped in the building, what has happened, and who is calling.
3. **Warn others** in danger.
4. **Extinguish the fire** if possible. Close all doors.
5. **Evacuate the premises** in an orderly fashion, according to the evacuation plan.
6. **Go to the assembly point.** The assembly point for corridor B200 is at the bicycle stands on *Professorsgatan*.

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In case of fire alarm, always follow the above rules, regardless of why the alarm was started! See also <https://www.medarbetarwebben.lu.se/stod-och-verktyg/om-nagot-hander/i-handelse-av-brand> (in Swedish) .

If the fire alarm goes off in another part of Fysikum than where you are, you do not normally need to evacuate. If risk arises in other buildings, the Rescue Service will start the fire alarm there as well.

Teachers have a particular responsibility to ensure that all students are told to evacuate the building, regardless of what they are doing, including examinations. See also related information under the tab “HMS” and “Lärarsidor” on the Nuclear Physics intranet (in Swedish):

http://www.nuclear.lu.se/fileadmin/nuclear/HMS/SBA_i_Fysicum_hus_B_2018-01-16Info_Eng.pdf (HMS= Hälsa, Miljö och Säkerhet - Health, Environment and Safety).

<https://www.lth.se/fysikintra/utbildning/> (log-in required)

All employees must attend a fire safety course arranged by the University. The course must be repeated every 5 years. A list of who has attended the fire course is available at the Division’s internal home page.

First aid

Two of 15 employees should have attended the first aid courses ”Första hjälpen och krisstöd” and ”Hjärt- och lungräddning” arranged by the University (only given in Swedish). The course must be repeated every 3 years. A list of who has attended the first aid courses is available at the Division’s internal home page. Persons who have attended these courses have diploma on their office doors.

In case of emergency

If an incident occurs that requires you to contact the emergency services centre or another authority, use the telephone numbers listed at <http://www.staff.lu.se/support-and-tools/in-case-of-emergency>.

Checklists and action plans for crisis management can be found at

<https://www.science.lu.se/internal/support-and-tools/crisis-management>

SOS alarm: tel 112

Lund University internal alarm number: 20 700

Akademiska hus (owner of the University buildings – report malfunctions at

<http://www.akademiskahus.se/vara-kunskapsmiljoer/forvaltning/felanmalan/?campusId=lu3>

Areas of responsibility

A list of those with specific areas of responsibility at the Division can be found at: http://www.nuclear.lu.se/internt/ansvariga_ansvarsomrden/ (in Swedish, one must be logged in at the internal pages prior to access, via www.nuclear.lu.se).

Radiation protection

Lund University's management system for radiation safety (<https://www.hr-webben.lu.se/arbetsmiljo/stralsakerhet>) (in Swedish), which states that ".. the vice chancellor is responsible for ensuring that the institutions that conduct radiation activities have access to the competence of the staff and the resources required for adequate radiation protection for both ionizing and non-ionizing radiation."

Information on what applies in detail can be found in the management system for radiation safety:

<https://lu.app.box.com/folder/87003282573?s=t0hszd29w3wx1zuatl0x99p8jpk1kplo>

The Head of Department has the ultimate responsibility for radiation safety in accordance with the university's delegation procedure. The radiation protection expert function (Hanna Holstein) coordinates in accordance with assignments from the vice chancellor. Thereafter, locally governing routines apply at Nuclear Physics / Microbeam hall and Teaching (and only Nuclear Physics/ Microbeam hall and Teaching, other areas may have other specific rules). The local rules must be followed and reflect the rules in the management system.

The Head of Department has delegated to Mikael Elfman to be the contact person according to the management system for radiation safety, and to act as the contact person for the radiation protection expert function (Hanna Holstein). Everything related to ionizing radiation must go via Mikael Elfman.

All staff at Nuclear Physics who work with ionizing radiation must have undergone the University's Ionizing Radiation Safety Course (available at *Kompetensportalen*) and taken part of the local radiation protection rules. Here you can read more about the web-based Ionizing Radiation Safety course: [https://www.hr-webben.lu.se/arbetsmiljo/stralsakerhet/joniserande-stralning_\(in_Swedish\)](https://www.hr-webben.lu.se/arbetsmiljo/stralsakerhet/joniserande-stralning_(in_Swedish)). External users of the Microbeam Hall must also have undergone the University's general radiation protection training (specific instructions about taking the course will be given by Mikael Elfman). The validity of a course certificate is 3 years. After that, the course certificate must be renewed by completing the course again.

Certificates of completed radiation protection course are saved in a list in the Department. Mikael administers the passive dosimeters that everyone who may be exposed to elevated radiation levels should use. He can also help dispose of radioactive waste properly. See also Special safety regulations for the Division of Nuclear Physics which are available via the Nuclear Physics internal website (under the tab "Health, Environment and Safety"). Purchased radioactive sources must be registered immediately upon receipt before use.

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There must be written operating instructions ("Standard Operating Procedures", SOPs) and risk assessments for all work steps with ionizing radiation. It is the employee's responsibility to take part in these and follow the rules.

Other regulations apply when working with radioactive substances in the aerosol lab (contact **Patrik Nilsson**).

The chemistry labs

Mattias Olsson (mattias.olsson@geol.lu.se, tel +46 46 222 31 99) can help you when you need to use the chemistry labs. Before being given access to the chemistry labs, you must have gone through the Division's Specific Safety Regulations with **Mattias Olsson**, and signed the corresponding declaration (see below, and under the tab "Health, Environment and Safety" on the Nuclear Physics intranet).

NB: All use of chemicals requires that a risk assessment is completed (see below).

The aerosol lab

A safety course must be completed before working in the aerosol lab at IKDC. Contact the superintendent of the aerosol lab, **Patrik Nilsson**.

The Microbeam hall

The Microbeam hall is a so-called controlled area. Controlled area is "A premises or place where activities are conducted shall constitute a controlled area if an employee can receive such annual radiation doses that the effective dose exceeds 6 millisieverts or if radioactive contamination of significance from a radiation protection point of view can be spread to surrounding premises or workplaces." (SSMFS 2018: 1).

Anyone who considers themselves in need of access to Microbeam hall should contact Mikael Elfman. For access (via the LU card) to the Microbeam hall, a specific security review by the Division's radiation protection manager Mikael Elfman is required. The review concerns i.e. radiation protection, dosimeters, radiation sources, logbook, fire safety and access in connection with neutron production. A safety declaration must be signed (provided by Mikael Elfman) by the user, Mikael Elfman, Hanno Perrey (in case of work with the Source Testing Facility), and by the Head of Division. Declarations must be updated annually.

For work in the laboratory, you must have a passive dosimeter (combined gamma and neutron dosimeter), which is administered by Mikael Elfman /ESS employees bring their passive dosimeter obtained by the ESS). In addition, all employees, as well as visitors and external users, must carry a directly displaying dosimeter (combined gamma and neutron dosimeter). This is stated in SSMFS 2018: 1: "In premises and in places where the radiation level can be changed quickly, all employees must use a direct dose meter that is equipped with an alarm function. The dose meter must be selected based on the current type of radiation, energy, changes in radiation level and the environment in which it is to be used."

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According to SSM 2018: 1: “Visitors may only be given access to a controlled area in the company of a competent person. Visitors must have reached the age of 18 or go to school at at least upper secondary school level.” All visitors, including students, must register with their names and social security numbers in a folder located in the corridor outside the control room. Directly displaying dosimeters must be worn by all visitors. The dose received is read and written in the binder when visitors are on their way out of the Micro Hall. This also applies to ESS personnel (to know the radiation dose from the stay in the Microbeam Hall of the total dose on the passive dosimeter)

Specific safety instructions

Specific safety instructions for the Division of Nuclear Physics can be found in the document “Specific Safety Regulations for the Division of Nuclear Physics” available on the Nuclear Physics intranet, under “Health, Environment and Safety”. All employees must have read and understood the information in this document. This is certified by signing the form “Declaration”. This Declaration is to be repeated every year, at an annual information meeting organized by the Executive Committee.

Risk assessment

When starting a new project that may involve new risks, a written risk assessment must **always** be made. Generally, work may not begin until an investigation and risk assessment have been conducted, as well as the necessary measures taken to prevent occupational health risks and accidents. See also “Specific Safety Regulations” on the Nuclear Physics intranet, under “Health, Environment and Safety”.

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