



Centre for Environmental and Climate Research

# Work environment policy for Norunda research station

Approved by the CEC board 12 May 2014. Revised 25 November 2016.

Norunda is a unit within Lund University's Centre for Environmental and Climate Research, CEC.

The Norunda research station carries out assignments for ICOS Sweden, which is a research infrastructure to monitor and understand the exchange of greenhouse gases between the Earth's surface and the atmosphere. ICOS Sweden is part of a European network. There are two CEC employees on location at the Norunda site. Visiting researchers and students also come to the site to conduct measurements.

## **CEC** employees based at Norunda:

Employee and **coordinator** Research engineer Anders Båth, tel.

070 393 2468

The coordinator is responsible for ensuring that rules and procedures are in place, that they are updated and respected.

Employee and **deputy coordinator** Research engineer Irene Lehner, tel.

072 577 8778

## Employees at Lund University with responsibility for Norunda:

Work environment manager for the

whole of CEC Director Henrik Smith, Centre for

Environmental and Climate Research,

tel. 046-222 9379

Employee to whom work environment duties for Norunda have been delegated

by the director Senior lecturer Maj-Lena Linderson,

Director of ICOS Sweden, Department of Physical Geography and Ecosystem

Science, tel. 046 222 8407

SPI (Station Principal Investigator) Research engineer Meelis Mölder,

Department of Physical Geography

and Ecosystem Science,

tel. 046 222 0378

Health and safety representative Finance officer Åsa-Katrin

Erlandsson, Centre for Environmental and Climate Research, tel. 046 222

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Principal health and safety representative Research engineer Erling Jirle,

Department of Biology, tel. 046 222

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SOS Emergency number for accidents, fire Call 112

Poisons information 010 456 67 00

Healthcare advice Call 1177

Police (non-emergency) 114 14

Rescue services in Uppsala https://www.uppsala.se/brandforsvaret

Description of activities	What work is carried out by employees?  Lab work: servicing and calibrating instruments, producing parts for instruments, drying soil and plant samples. Fieldwork: checking and maintaining installations. Making new installations. Clearing access to installations.  Mast work: Maintaining, servicing, installing and calibrating instruments. Maintaining the mast and the mast lift.  Transport by car.  Office work.  What work is carried out by visiting researchers?  Installation and measurements in the forest. Installation and measurements on the mast. Installation and measurements in the lab. Office work.
Ownership of the land and buildings, maintenance	There is to be an agreement clarifying these matters.  Landowner: Norunda commonage. (The commonage has no responsibility for the facility. They are not permitted to take measures, within a 1000 m radius of the mast, without approval from Lund University.)  Owner of the staff building: Lund University  Owner of the lab building: Lund University  Mast owner: Lund University  Snow clearing: Staff are to contact snow-ploughing services as required.  Storm-felled trees: Staff are to contact the commonage.  Lund University is responsible for electricity, water, sewage and ongoing maintenance.  In case of power cuts, contact is to be made with the electricity supplier/electrician.
Mast, construction and	Recommendation from the Ramböll company:

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maintenance	Conduct a visual inspection once per year, which can conveniently be carried out in conjunction with the safety inspection.  A thorough check of items such as cables and bolts is done every ten years.  Such a check may also be needed if there has been a storm, for example, and several trees have fallen against the cables.  These checks should be carried out by an external consultant.  Records of the checks are to be kept with the administrative head at CEC, while one copy is to be sent to the director of ICOS Sweden and one kept in Norunda.

Safety and risk management	
Rescue vehicles	Rescue vehicles have access all the way to the facility. Rescue services are informed of the research station and its exact location.
Fire safety Systematic fire safety management	The coordinator is to have undergone fire safety training. All those who spend time at the site are to be informed of the location of fire extinguishers. The fire extinguishers are to be plainly visible, one at each entrance, 4 in total. There are fire alarms in all rooms.
Procedures when working alone	Avoid working alone as far as possible. If working alone, the following rules apply:  - A functioning mobile phone connection is to be available.  - Work which involves hazardous elements is not to be undertaken when alone, e.g. chain-saw work, climbing.  Working alone in the dark is not permitted.
Weather conditions such as snow, storm	In order to avoid being snowbound, or isolated or injured by falling trees, staff are to leave the facility when the weather forecast indicates such risks.
Climbing training and medical check-ups	Before an employer assigns an employee to perform mast or pole work, the employer must ensure that the employee has undergone sufficient training and has obtained the necessary skills.  Employer in this context refers to the person who employs hired labour to carry out work at their organisation.
	Anyone who is to climb the mast is to have undergone specific theoretical and practical training for this type of work. They must also have had a special type of medical check-up.
	There is to be a record of completed climbing training and medical examinations for staff with the administrative head at CEC, in Norunda and with the director of ICOS Sweden.
	The coordinator ensures that the visitors who are to climb the mast have undergone climbing training and a medical check-up and that they use protective gear.

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	Chapter 3, Section 12 of the Swedish Work Environment Act, the person in control of a workplace has a safety responsibility. This responsibility may be applicable when the person who performs work on masts or poles is not employed by the person who owns the facility or otherwise entitled to dispose of it. In such cases, it may be difficult for the person's employer to check the condition of a wooden pole, for example, before the pole work begins. Therefore, the responsibility for carrying out such checks falls on the person who is in charge of the facility and thus also the workplace.
Mast work safety	Mast work requires general equipment to be used: a safety helmet with a chin strap and fall protection equipment. Where necessary, protective gloves, safety goggles, protective footwear and protective clothing are to be used. Equipment for retrieving an injured person from the mast is to be readily available. In order to call for help, employees on the mast must have appropriate alarm and communication equipment. An alarm transmitter is available. There is to be a plan for the immediate rescue of a person who is injured or in need of assistance. Tools and equipment used on the mast are to be chosen for their suitability for the work to be done and where necessary, secured so that they do not constitute a risk of being dropped or other risk.  Mast work is not to be carried out when there is a risk of injury or accident due to uncontrolled falling ice or snow, or due to unsuitable meteorological conditions. It is not permitted to stay on the mast in the case of an impending or ongoing thunderstorm.
	Mast work is not to be carried out alone. The work colleague on the ground must be in service and authorised for height work, in order to be able to rescue an injured colleague from the mast if necessary. All persons on the ground below must wear safety helmets and maintain a safe distance from the mast in order to avoid being injured by falling objects.
Measurements in the trees	A tree surgeon is to be contracted for work which requires climbing trees.
Chemicals, gas	Chemicals are to be listed in the KLARA database continuously. The coordinator is responsible for ensuring that the chemicals are entered in KLARA. This is done by principal health and safety representative Erling Jirle.  There is no toxic or flammable gas. The containers that are on site are to be chained up. Leakage tests are to be conducted at each switch.
	Flammable chemicals are to be stored in special cabinets in the workshop/lab.
	In general, for all work involving chemicals, everyone is to be well informed of the relevant chemical's properties and any associated risks.
	Personal protective equipment such as safety goggles, gloves and

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	overalls is to be used.
	All bottles and jars are to be clearly labelled and kept in a manner appropriate to each chemical.
	Premises where chemicals are used and stored are to be kept in good order.
	Food or drinks are not to be prepared or stored in the vicinity of a hazardous chemical.
	Skin which has come into contact with chemicals is to be cleaned immediately.
	If in doubt after contamination with chemicals, contact a doctor.
Information for visitors on safety procedures etc.	An information leaflet on safety is to be distributed to all visitors. It is also to be signed by all visitors to certify that they have read the information. The information is to be available in both Swedish and English.
Vehicles and transport	People and goods are to be transported by car.
	The service vehicle is always to be kept in a roadworthy condition.  The service vehicle is to be serviced regularly.  Tyres are to be changed when the tread is reduced to a depth of 3 mm for winter tyres and 1.8 mm for summer tyres.  The vehicle is to be loaded correctly.  All traffic regulations are to be scrupulously respected.
Machines, power tools, chain saws, hiring of staff	Chain saws Anyone working with a power chain saw or a brush cutter - is to have undergone training for the type of work to be conducted and to have the necessary skills, - is to be familiar with the construction of the saw, safety features and properties to the extent required for safe use in various work situations, - is to use the work technique most suitable for the type of work to be carried out in order to avoid injury and accidents, - is to make sure to protect themselves against falling or flying objects, oil, exhaust fumes, noise and vibrations as well as cuts from the saw chain or blade.  - Power chain saws and brush cutters are to be regularly checked. The check is to be carried out by a person with good knowledge of the device's construction, use and care Saw chains and blades are to be checked during the work and continuously maintained; worn or damaged chains and blades are to be discarded; damaged single saw teeth are to be replaced.
	<ul> <li>If damage or faults which could compromise safety are discovered during checks, supervision or work with a saw, the saw is not to be used again until it has been repaired.</li> <li>When working with a power chain saw, the following personal protection equipment is to be used: ear protectors, safety helmet, safety goggles/face shield against damage from mechanical effects, protective footwear or protective work boots and leg</li> </ul>

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Waste management	guards against injuries from the power saw chain, and protective gloves.  - When working with a brush cutter, the following personal protection equipment is to be used: ear protection, safety goggles, safety helmet if the brush to be cleared is higher than 2 m and protective gloves.  - When working with a power chain saw or a brush cutter, the saw operator is to bring along first aid equipment.  Work with a power chain saw/brush cutter is not to be carried out alone. The work is not to be done in darkness.  Staff working with this type of saw are to have a power saw operating licence. A copy of this licence is to be sent to the director of ICOS Sweden and the administrative head at CEC.  When hiring labour for saw work, a risk assessment is to be carried out. The risk assessment should be performed in sufficiently good time to allow the person specification for the job to be adapted to the work and the associated risks.  Household waste is to be placed in the rubbish bin.  Other waste is to be driven to the recycling station in Uppsala municipality.
Latrines	Gloves are to be worn when handling the latrines and hands must be washed afterwards.  Otherwise, recommendations and instructions from <i>Separett</i> are to be followed. Once the container has been replaced, the old one is to stand for 6 months before the waste is buried in the ground. There are 8 containers in circulation.
Encounters with animals in the forest	There is separate information on how to behave in case of encounters with animals. This information is also distributed to visitors to Norunda. There is a hunting team assigned to the forest of Norunda commonage. The staff at Norunda have good communication with the hunt leader and they inform each other continuously about activities on either side. The purpose is to disturb one another as little as possible and for the staff to feel safe when on location in Norunda. For example, the staff are not on site during 1–2 working days of the first week of elk hunting when hunting takes place on that drive.
Risk of contagion and poisoning from small animals	Ticks can cause borrelia, infection via TBE virus and other diseases. Check your skin and remove any ticks in order to reduce the risk of contamination. See separate information.  Viper bites require a hospital visit. See separate information.  For wasp and bee stings, see separate information.  Sensitive individuals should bring medicine against allergic reactions with them. Work colleagues are to be informed of any increased sensitivity, what medicine the persons is to take if necessary, and where it is kept.

First aid equipment and training	First aid equipment is always to be accessible in a specific place. It can be found in the green shed to the left inside the door and in the office building.
	Staff are to have undergone first aid training.
	A defibrillator can be found in the green shed. Staff are to be trained in how to use it.
Safety inspections	Safety inspections are to be carried out once per year. Other less extensive reviews are to be performed in between inspections. The employees at Norunda, the director of ICOS Sweden, the health and safety representative, the principal health and safety representative, and others may take part in the inspection.
Incidents and accidents	Incidents and accidents are to be reported immediately to the coordinator, Anders Båth. He is responsible for ensuring that the damage is immediately reported further within Lund University.
	If an accident almost happened but everything turned out well after all, this close call is also to be reported to the coordinator so that such accidents can be avoided in the future. This is also to be reported further within Lund University.
Premises	
Kitchen and office	There is a timer on the stove.
Overnight rooms	There are 3 rooms with a total of 5 beds. There is a fire alarm in each room. Fire extinguishers are in place. The rooms are on the ground floor.
Access barriers to the facility. Alarm, locks, codes, fences Risk of theft	To reach the facility, two access barriers must be opened. When someone is present at the facility, these barriers are open. There is no alarm system or access codes. The mast is surrounded by a locked fence, two metres high. Both the lab building and the office are locked with two locks. One of the bedrooms and the lab room have their own entrance and are locked with ordinary cylinder locks. All locks, including those to the barriers, have the same key. The mast fence has a separate key. There are keys available for loan to visitors.
Administrative issues for staff Psychosocial work environment	
Working hours Annual leave Illness Leave of absence Travel expenses Orders Invoices	For employed staff, see the separate work environment policy, in which administrative issues for staff and psychosocial work environment issues are included. The policy applies to all of CEC.

Health promotion	
Glasses for screen work	

Lund xx November 2016

Henrik Smith Director of CEC

## Laws, regulations and guidelines – a selection

The laws and regulations that apply are listed on LU Estates' website. See <a href="https://www.staff.lu.se/employment/work-environment-and-health">https://www.staff.lu.se/employment/work-environment-and-health</a> <a href="https://www.hr-webben.lu.se/arbetsmiljo">https://www.hr-webben.lu.se/arbetsmiljo</a>

## Laws and guidelines – a selection

Work Environment Act, SFS 1977:1160

Work Environment Ordinance, SFS 1977:1166 (in Swedish only)

## Provisions of the Swedish Work Environment Authority, AFS

Systematic work environment management, AFS 2001:1

Organisational and social work environment, AFS 2015:4

Mast and pole work, AFS 2000:6 (in Swedish only)

#### Work Environment Authority regulations, AF

<u>Use of chain saws and brush cutters 2012:</u>1 (in Swedish only)

Act 2003:778 on accident prevention (in Swedish only)

Ordinance 2003:789 on accident prevention (in Swedish only)

Swedish Civil Contingencies Agency regulations, SRVFS (in Swedish only)

Environmental Code 1998:808

<u>Chemical products and biotechnical organisms ordinance 2008:245</u> (in Swedish only)

List of provisions of the Swedish Chemicals Agency, KIFS

AFS 2000:04 Chemical hazards in the work environment

AFS 2015:4 Organisational and social work environment

#### **Lund University**

**Work Environment Policy** 

## Work environment action plan

Procedures and other decisions regarding the work environment at Lund, e.g:

Regulation regarding children's visits to sites of work or studies

Ban on overnight stays on the premises of Lund University

Ban on smoking in and close to university buildings

Ban on keeping personal pets on university premises

Regulation on health promotion at Lund University

<u>First aid training for staff</u> (organised by Occupational Health Service at Lund University)

Guidelines on alcohol and other drugs

<u>CEC</u>
Work environment policy and action plan for CEC
Plan for gender equality and equal opportunities