

SSHE Newsletter 1/2022

July 2022



1 Periodic Equipment Inspection (GeP)

Soldering irons, magnetic stirrers or centrifuges: In laboratories and workshops, plug-in electrical devices are truly omnipresent. However, are all these devices safe at ETH Zurich? Are they being used in a suitable environment? What about equipment that has been self-made by the research groups?

These questions are addressed by periodic equipment inspections (GeP). These have been compulsory for all employers since 2018. The inspections must ensure, among other things, that no danger is posed by electrical devices when they are used as intended. ETH Zurich has developed a concept to meet this requirement. This stipulates that the GeP for the devices in laboratories and workshops is available to the research groups as a service. The GeP will be combined with the periodic checks on the electric installation of the building in order to minimise any disruption to teaching and research.

The GeP is coordinated by the Fachstelle Elektro (Engineering and Systems department, E+S) and is carried out by external partners. During the GeP, the inspection teams rely on the cooperation of the users, as only they know where each device is located. All inspected devices are marked with a sticker. Defective devices (orange or red stickers, see images) may no longer be used until they are repaired. Minor faults, such as defective power cables or using travel adapters instead of fixed adapters, are rectified immediately as part of the GeP.

In future, users will have the choice to inspect their devices themselves. This will be especially useful for devices that are used in field trials, or which are loaned out, as these devices need to be inspected after every field measurement session and/or before each loan. ETH Zurich is planning courses to give members of ETH Zurich the relevant expertise to achieve this goal. If you have any questions, please contact Bruno Meni, Project Manager (E+S): brunomeni@ethz.ch.



Cable is pulled out and housing is defective: frequently observed defects. Images: E+S.

2 Asbestos in Movable Items







Asbestos was legally used in Switzerland up until 1989. In addition to being used in building construction, there are also movable items containing asbestos. This text is about movable items which contain asbestos; fixed installed devices are not covered (for these, cf. [Newsletter 2/2021](#)).

A well-known movable item that contains asbestos are plant pots made from asbestos cement, commonly known under its brand name, Eternit. Asbestos cement was often used to make panels. It was added to doors, boiler rooms, and even used to construct entire facades. Individual panels were used as work surfaces and mats, for example in greenhouses and workshops. Remaining items containing asbestos are regularly reported to ETH Zurich.

Another product are sealing rings, which are often stored as replacement parts. It also happens that asbestos-containing sealing rings – not declared as such – can still be ordered and imported from countries where there is no asbestos ban (e.g. China). In addition, panels containing asbestos were produced as a basis for cutting out sealing rings, for example Klingerit panels (Klingerit is the brand name). These panels are still in circulation today.

Other movable items which can contain asbestos are fireproof gloves, asbestos cords and lightweight building boards. Here, the asbestos is weakly bound in contrast to asbestos cement and sealing rings, where the asbestos is tightly bound. Thus, asbestos fibres can be released from these items without any processing, which is why they were eliminated from circulation as a priority. However, they still pop up at ETH Zurich from time to time.

If you notice a movable item which may contain asbestos during your work, please report it to [us](#). We will support you throughout the process and in the correct disposal.

 <p>Plant trays Asbestos cement</p>	 <p>Loose boards Asbestos cement</p>	 <p>Loose sealing rings Generally bonded</p>
 <p>Boards Basis for cutting out sealing rings</p>	 <p>Glove weakly bound, high proportion of asbestos</p>	 <p>Asbestos cord weakly bound, high proportion of asbestos</p>

Examples of asbestos in movable items, images: SSHE.

3 Ensuring Safety in Older Machinery: Still Usable “As Is”?

Older models of machines are found in many workshops. They are popular, often of high-quality and, with good maintenance and service, remain practically indestructible, even after decades of work. However, these stalwart machines also need to meet fundamental requirements for safety and health protection. What does that mean for you, as the responsible operator?

The technical safety requirements that were imposed on machines commissioned before 1997 in Switzerland are often less stringent than those for new machines: They do not need to be CE-compliant, but do have to meet the safety objectives of the Ordinance on Accident Prevention (*Verordnung über die Unfallverhütung*, VUV, Art. 25-32 and 342) as well as the requirements set by the Federal Coordination Commission for Occupational Safety (*Eidgenössische Koordinationskommission für Arbeitssicherheit*, FCOS, Directive 6152, Work Equipment). This does not automatically mean that these machines need to be shut down. They can be retrofitted so that they can be safely operated in accordance with current

technological standards. For the most common machines (universal lathes, milling machines, etc.), the SUVA (Swiss National Accident Insurance Fund) has drafted [checklists](#) (in German only) stating the required technical retrofitting.

However, it must be carefully considered whether retrofitting is the best option. Procuring a new machine may be cost effective. In addition, new machines are CE-compliant, a maintenance contract can be concluded and spare parts can (usually) be obtained.

If you have any questions on machine safety, please contact cabs@ethz.ch.

4 Skin Protection in Laboratory, Workshop, and for Outdoor Work

Experienced colleagues know that well-cared for hands don't just look better; they also help to prevent long-term skin damage due to work. Around one in five occupational health conditions concerns the skin, and hands are frequently affected. During inspections of workplaces, we have noticed that successful skin protection measures have already been implemented in some laboratories and workshops.

Overall, however, there is still a need for action at ETH Zurich in order to assure a uniform approach and to attain the level of protection which is standard within the industry. The Occupational Medicine and Health Protection section has selected appropriate hypoallergenic protection and care creams that are suitable for daily use on even sensitive skin. They can be ordered from the ETHIS web shop. You can find the link and instructions for the correct use of protective and care creams in the factsheet [hand protection and care](#). However, skincare is not just important in laboratories and workshops, but also outdoors. Therefore, certified [sun protection products](#) can be ordered from the ETHIS web shop for ETH employees who work outdoors, i.e. in maintenance or field work.

5 Who is Liable when Consigned Third-Party Items Go Missing?

"Can I leave my suitcase with you for two hours?" Imagine you are working in an Information and Service Centre (ISC) or as an assistant to a professor. At some point, you will probably receive and store third-party property. Usually, this presents no issues. However, what if problems occur?

- a) Suddenly, the person who owns the suitcase claims that a valuable watch is missing from it when you hand it back.
- b) Someone gives a gem into your care (e.g. for an authenticity test). When you return it, the person claims that this is not the gem that they handed in to you.

Comply with a few precautionary measures when handling someone else's property.

- a) Ensure that the containers are locked / closed before you accept them. Take care to note any damage and take a photograph of the item, note any damage in the presence of the owner. Attach a note bearing the contact information of the person.
- b) Photograph the gem from different angles with an object as a size reference. The owner must be present when you do this. Do not accept any items that you know could be of very high value.

Back to the question in the title: You are liable for ensuring that all items entrusted into your care remain undamaged and complete. If these or similar situations occur (e.g. how to handle personal belongings of an employee who has had their contract terminated), the [Security](#) team is happy to advise.

6 Bedretto Lab Emergency Training

SSHE visited the Bedretto Underground laboratory in the valley of the same name as part of emergency training course. Here, in the former access and ventilation tunnels of the Furka Tunnel, researchers have the opportunity to research deep geothermal energy with boreholes in the Gotthard massif. Working safely, two kilometres deep inside the mountain requires special measures and precautions, proving a challenge for both SSHE employees and researchers alike. Regular safety courses are therefore essential.

With the support of external partners, the Fire Safety and Explosion Protection section, along with the Occupational Medicine and Health Protection section, distributed information on the topics of “Alarms and communication”, “Wounds and transport” and “Extinguishers and their uses” as well as “Illness and resuscitation” in various training blocks.



Images: SSHE.

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