



SwissFEL Safety Instructions (for external Users)

Version 15.10.2018 / PC65

By registering in DUO and applying for SwissFEL access, the USER acknowledges:

- All activities are subject to Swiss laws and regulations, PSI general policies (Allgemeine Weisungen) and the SwissFEL Operating Instructions (OI) (Betriebsvorschriften, AW-85-16-01).

PSI general policies and the [SwissFEL operating instructions](#) are accessible on the PSI Intranet. A folder containing printed versions of the OI and of relevant general policies (mostly in German) is available for consultation in meeting room OSFA EH.056 (opposite Alvra).

- PSI contact person has knowledge of the OI and of applicable PSI general policies and should be contacted in case of a question or uncertainty. All external users must be assisted by a PSI contact person who is responsible for their safety. The PSI contact person must provide instructions on how to use the facility and point out applicable safety measures in accordance with the SwissFEL OI and PSI general policies.
- In case of an emergency or accident, call **PSI Security 056 310 33 33** (internal 33 33) who will trigger any assistance required, e.g. ambulance or fire brigade.
- Emergency procedure sheets and escape route plans are posted at prominent locations inside the building. Users must make themselves familiar with their location and escape routes upon arrival on-site.
- SwissFEL is located approx. 500 m from the PSI East campus. Approach to SwissFEL is usually by foot or bicycle. Use of motor vehicles is restricted. Access to and use of the SwissFEL cargo unloading/loading dock OSFA EH.002d (at z614) must be arranged with the PSI contact person.
- Users may only move freely in the designated user areas within building section "Experimentierhalle" (EH). All other rooms and areas are off-limits, unless additional access is authorized, or unless users are accompanied by PSI staff.

In particular, off-limits are the first floor of EH, the Aramis Optical Hutch EH.051, the future Athos area EH.020, rooms EH.057 and EH.098, utility rooms and the entire building south of the glass doors at z605 into corridor EH.002c.

- There is still installation work ongoing at SwissFEL. Due to the changing hazard situations (e.g. ad hoc transports of heavy loads, partial opening of false floors) users must exercise extra caution.
- The outer doors must be kept closed. Emergency Exits may only be used in case of an emergency. Opening an emergency exit will raise an alarm at PSI's security headquarter.
- The Alvra and Bernina experimental stations (located in EH.053 / EH.055) are controlled areas in terms of the Swiss radiation protection ordinance. Hazards from ionizing radiation may exist. It is mandatory to wear a **personal dose meter** at all times in these rooms.
- External users must be instructed by their PSI contact person about the location and meaning of warning signs, loudspeaker announcements and acoustic alerts indicating imminent or already present hazards from FEL and laser radiation, lack of oxygen, etc.
- Alvra and Bernina are equipped with three **emergency-off "Not-Aus" buttons** each. Users must familiarize themselves with the locations of these buttons upon arrival on-site. The emergency-off "Not-Aus" buttons are designated as Personal Safety emergency buttons. Pushing these buttons will:
 - **Terminate any hazard** from laser, FEL beam, moving components or electricity within the room.
 - **Provide emergency escape** by releasing the electromagnetic bolt keeper on the entrance door, which is locked during laser mode and FEL beam operations.

- There may be hazards arising from mechanical movements at the experimental stations. Floor marking indicating driveways must be respected. Some mobile components may be equipped with **emergency-stop “Not-Halt”** buttons which stop mechanical movements on the respective components only.
- When in laser mode, Alvra and Bernina may only be entered by trained user wearing suitable protection equipment, in particular laser safety goggles (this also applies to all other laser rooms). As exception, untrained users may enter the experimental stations only when they are accompanied by PSI staff and wearing suitable protection equipment.
- Safety boots, i.e. hard-toed boots, are mandatory during installation, assembly or transportation work involving heavy components. Sandals or high heels are generally prohibited. Moreover, personal protective equipment such as hard hats, safety glasses or protective gloves may be mandated in specific situations.
- Working alone is restricted to non-hazardous activities.
- Users must notify the PSI contact person in advance on any hazardous material or substance used on PSI premises, e.g. chemicals, biological or radioactive samples, or nanoparticles.
- All activities must be prepared in advance with a work schedule, which must include the identification as well as minimization of direct and indirect risks. All work with a potential hazard must be discussed in advance with the PSI contact person.
- Workplaces must be kept clean and safe.
- Use of cranes is restricted to PSI staff with respective training.
- Users are only allowed to operate the infrastructure and experimental equipment of the experimental stations (e.g. Personnel Safety System PSYS, laser, robots) after being instructed by the PSI contact person.
- SwissFEL Stormwarning: In case of a stormwarning, the sign at the entrance to the road to SwissFEL will read “Sturmwarnung” and access to SwissFEL is prohibited.
If a storm alarm occurs while working at SwissFEL, the surrounding of SwissFEL are off limits and any Exits to the outside must remain closed. Please proceed to the info-point screen near the Entrance of SwissFEL.
Instructions for a precautionary evacuation of the building (in case of sufficient early warning time) or for remaining within the building (in the case of an severe danger situation) must to be obeyed.

This two-pager summarizes only the major points related to safety at work. It cannot cover or foresee all potential situations. Therefore, it does not release staff, supervisors, contact persons or users from their duty to exercise due diligence and common sense.