Leaflet „working alone“

Background
According to Article 8 of the Ordinance on the Prevention of Occupational Risks (VUV), the employer is only authorized to permit employees to undertake dangerous work when they are appropriately trained to carry out such work. Additionally, the employer must ensure that employees are appropriately monitored in situations when they undertake dangerous procedures alone.

Admissibility of Solitary Workspaces
Basic Principle: Working alone is not permitted when the work could lead to injuries which would necessitate the immediate help of a second person. This is particularly the case in the following situations (the list is not all-encompassing):

Work where constant monitoring by a second person is compulsory (independent of time of day):
- Working on any live electrical installations
- Working with sources of radiation outside of specially equipped rooms
- Working using compressed air and respiratory equipment
- Working in combustion rooms / furnaces, chimneys and connection canals
- Working in containers and confined spaces
- Working in tunnels / shafts, caverns, cavities and channels as well as when climbing into silo
- Working near watercourses / in running water
- Working in mines, in rock layers containing natural gas

Work which may only be undertaken in sight and within earshot of another person (independent of time of day):
- Work on technical equipment in special operation (e.g. installation, construction, trouble-shooting, fault-rectification and maintenance)
- Work where there is a danger of being caught in moving parts
- Work in areas that are normally not accessible and are not secure
- Work in woodlands that is considered dangerous e.g. working with motorized sawing equipment, work on steep slopes, moving wood, climbing trees
- Climbing (above a height of 3 m)
- Work with chemicals or glassware
**Requirements**

**Constitution of the employees**
- Employees must be psychologically competent to work alone
- They must be physically capable of carrying out work alone
- They must be intellectually competent to carry out work alone ie. be aware of the relevant danger

**Instructions**
- People working alone must be informed of their precise work assignment and carefully instructed in the operation of machinery they are to use.
- They must be aware of the dangers that exist in the working environment and know the requisite safety precautions (correct behavior, wearing protective equipment)
- People working alone must know exactly how to react in unusual or dangerous situations, for example by machine malfunctions, production disturbances, liquid or gas emissions, fire (call for help, emergency exits, ...)
- They must be instructed on access routes to safe areas and on the correct use of necessary personal alarm signaling equipment (e.g. telephone, walkie-talkies). Before starting work these systems should be checked to ensure that they function correctly.
- The users are responsible for the regular maintenance of emergency equipment. (e.g. dead-man sensor, ...)
- At least on an annual basis, checks must be carried out to verify that the relevant people have appropriate knowledge and abilities to work alone. If necessary instruction must be repeated.

**Situation at the ETH Zurich**

At many workspaces of ETH Zürich the possibility exists for employees to be exposed to dangers. Outside of normal working hours it cannot always be assumed that a second person will be in sight or within earshot of an employee and for this reason the rules relating to working alone are to be complied with. This means that in principle **without the presence of another person** or an appropriate alert system **no work of a potentially dangerous nature may be undertaken** which would be forbidden in accordance with the rules stipulated above. **Routine procedures**, where **the exact procedure is known** or where **technical or structural measures** have been undertaken to prevent an injury during **operational processes** involving dangerous materials or machinery **may be carried out alone**. For this reason, the guidelines are to be applied comprehensively or are to be laid down specifically in writing for certain workspaces.

**Example: Working in the laboratory**
- Trainees, students, and apprentices may never work in a laboratory without the supervision of an assistant.
Working alone

- Any work before 8 a.m. or after 7 p.m. requires an additional approval from the head of the working group. Diploma student may work before 8 a.m. resp. After 7 p.m.; their mentor is responsible for their safety.
- All other people must make sure to have a second, emergency qualified, person to be present, whenever they work with chemicals or glass equipment on holidays or between 10 p.m. and 6 a.m.. Both persons are responsible for each other and for a safe work procedure.
- Planned night-, weekend- and holiday work using chemicals or glass equipment must be announced early to the group safety officer or assistant.

Alarms

In the following table the monitoring possibilities for solitary workspaces are listed. Specialists from SSHE are happy to provide assistance with assessments of needs and the choice of equipment.

<table>
<thead>
<tr>
<th>equipment</th>
<th>suitable for danger level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>low</td>
</tr>
<tr>
<td>phone (landline)</td>
<td>X</td>
</tr>
<tr>
<td>stationary alarm system</td>
<td>X</td>
</tr>
<tr>
<td>cordless phone (within reach)</td>
<td>X</td>
</tr>
<tr>
<td>cell phone / mobile phone (with reception in the building)</td>
<td>X</td>
</tr>
<tr>
<td>radio set / walkie-talkie</td>
<td>X</td>
</tr>
<tr>
<td>time-controlled test calls</td>
<td>X</td>
</tr>
<tr>
<td>dead-man sensor</td>
<td>X</td>
</tr>
<tr>
<td>permanent video surveillance</td>
<td>X</td>
</tr>
<tr>
<td>certified personal-emergency-system (e.g. PNA-11)</td>
<td>X</td>
</tr>
</tbody>
</table>

*) Has to be monitored permanently

Further Information

Legal basics (in German)

- SUVA checklist 67023.D: [http://www.suva.ch/home/suvapro/informationsmittel_suvapro.htm](http://www.suva.ch/home/suvapro/informationsmittel_suvapro.htm)

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