

CLOTHING REGULATIONS – FACULTY OF APPLIED SCIENCES

A discussion has arisen in the VGWM (Safety, Health, Welfare & Environment) Committee of the Faculty of Applied Sciences (AS) about the requirements that AS sets for clothing worn by staff working in laboratories. The discussion began following an accident and undesirable situations reported by Area Supervisors.

The purpose of this document is to provide clear and unambiguous guidelines on clothing.

Delineation: Work clothing is regarded as Personal Protection Equipment (PPE). This document does not set out in full the faculty's policy for PPE. In addition to regulations for work clothing that is regarded as PPE, the document also describes a number of other items of equipment for the types of work most often carried out. (Due to the related usage of PPE items). This document is designed for Area Supervisors to use if they find that staff or students are carrying out work without sufficient protection.

Corporate clothing is a special form of PPE that is also designed for recognisability. This document does not deal with corporate clothing.

Purpose

To set out the requirements relating to clothing for various types of work.

To harmonise the requirements for work clothing throughout the Faculty of Applied Science.

Regulations

The PPE for each type of task is set out in the table below, along with the part of the body to be protected. Explanations are given where required.

In principle, everyone provides their own clothing, unless additional clothing or other PPE is required on a structural basis. In principle, additional clothing and PPE for staff are paid for by the employer. Students are required to purchase a package consisting of a lab coat and safety glasses. If students have to use specific PPE (e.g. for a laboratory experiment), this is provided.

Work clothing should not be bought until the Departmental Safety Officer (DSO) has been consulted.

| Task | Area to be protected | Equipment | Personal / Provided at location | Notes |
|--|----------------------|--|---|---|
| Wet and/or chemical and biochemical work | Trunk, arms and legs | Lab coat, or disposable overall or apron, and long trousers or long skirt (not floor-length) | Personal | Excludes work involving water (Protect bare lower legs, e.g. with boots or shin guards) Own long trousers or long skirt. |
| | Feet | Sturdy closed-toe shoes or boots | Personal | No high heels. Own shoes or boots. |
| | Eyes | Safety glasses or cover spectacles | Personal. Glasses are provided for visitors | If necessary, use a face shield when transferring between containers |
| | Hands | Suitable (disposable) gloves | Personal | |
| | Lungs | Breathing apparatus when working with larger volumes outside the fume cupboard | Personal | When working with volatile substances and powders with an exposure risk |
| Cryogenic liquids | Trunk, arms and legs | Lab coat, apron or overall | Available at location | |
| | Feet | Closed-toe shoes or boots | Personal | No high heels. Own shoes or boots. |
| | Face and eyes | Face shield | Available at location | |
| | Hands | Suitable gloves | Available at location | |
| Machine work | Trunk, arms and legs | Work coat or overall | Personal | |
| | Feet | S2 or S3 safety shoes with steel toe | Personal | |
| | Face and eyes | Safety glasses | Personal. Glasses are provided for visitors | |
| | Hands | Suitable gloves | Personal | No gloves if work involves turning |
| | Lungs | Breathing apparatus | Personal | If machine extraction is not sufficient and depending on the material used. If necessary, use head |

| Task | Area to be protected | Equipment | Personal / Provided at location | Notes |
|---------------------------------|-----------------------------|--|--|--|
| Welding | Trunk, arms and legs | Apron and fire-retardant overall | Available at location | |
| | Feet | Safety shoes (fire-resistant laces) or special welding clogs | Personal | |
| | Face and eyes | Welding mask or welding goggles (autogenic) | Available at location | |
| | Hands | Welding gloves | Available at location | |
| | Head | Cap | Personal | (Bare-headed? Beware of UV radiation). Depends on the welding process and type of helmet/mask system |
| | Lungs | Breathing apparatus | Personal | Use with welding mask/helmet if mechanical extraction is not sufficient |
| Heat | Trunk, arms and legs | Apron and fire-retardant overall | Available at location | |
| | Feet | Sturdy shoes with suitable laces | Personal | Wear own shoes for occasional work |
| | Face and eyes | Face shield | Available at location | If necessary, with glasses with suitable coloured lenses |
| | Hands | Suitable gloves | Available at location | |
| Laser | Eyes | Glasses with suitable coloured lenses | Available at location | N.B. Wavelength of laser |
| Noise | Ears | Hearing protection | Available at location | At noise levels > 80 dB(A) |
| Fieldwork and botanical gardens | Face | Sunglasses and sun cream | Personal | Staff/students provide these themselves for occasional work |
| | Head | Cap or hat | Personal | Wear own headwear for occasional work |
| | Body | Warm coat, slash-resistant clothing | Personal | Wear own clothes for occasional work |
| | Feet | Sturdy shoes or boots. Botanical gardens: S2 safety shoes | Personal | No high heels. Wear own shoes/boots for occasional fieldwork |

| Task | Area to be protected | Equipment | Personal / Provided at location | Notes |
|--------------------------------|--|--|--|---|
| Electrical (>48V and <1000V) | Feet | S3 safety shoes | Personal | Stand on a rubber mat |
| | Hands | Rubber gloves | Available at location | Use insulated equipment |
| UV light | Upper body, arms and face | Lab coat, face shield, rubber gloves | Available at location | E.g. for cutting out protein bands |
| Ionising radiation | | | | See instructions of TUD Radiation Protection Service |
| Biotechnological (ML1 and ML2) | | | | See TUD Biosafety Manual |
| Office | Legs, back, neck, shoulders, arms and eyes | Desk at correct height. Chair properly adjusted. Computer glasses. | Available at location. Personal | Computer glasses are paid for by the employer if the user's sight is good at 30 cm and 5 metres, but not good at 60 cm. |

Advice

The Departmental Safety Officer (DSO) can advise on the use of equipment. He can also advise on additional equipment.

Supervision

The Area Supervisor, laboratory supervisor and immediate superior are the first-line supervisors for the use of equipment. Other line staff, the DSO and the SHE advisor are also responsible for supervision.

Sanctions

1. The cost of damage resulting from the failure to use protective equipment is payable by the person who has failed to use the equipment.
2. If clothing regulations are not complied with, the Area Supervisor or Departmental Director can stop the work. It is also possible that the person(s) concerned will be refused admission to the room in question.
3. A student or staff member who is of the opinion that he/she cannot carry out work is entitled to suspend the work (assigned task). This should be reported immediately to the Departmental Director.

Provision of equipment

Items denoted as 'Personal' are provided free of charge to staff.

Equipment denoted as 'Available at location' is provided by the relevant AS department. Students provide the items denoted as 'Personal' (e.g. safety glasses, a lab coat or overall, clothing and sturdy closed-toe shoes).

Budget

The departments have a budget for safety equipment.

A decision can also be taken to make budget allocations to research groups.

Where applicable, students are responsible for purchasing additional clothing and PPE. Lab coats and safety glasses are available at a special price.

Visitors

The host is responsible for looking after visitors and ensuring that equipment is provided.

Cleaners

The materials required depend on the work carried out in the room and the time of day at which cleaning is done. The DSO can advise on the materials to be used. The cleaner's employer is responsible for purchasing cleaning materials and supervising their use. Failure to comply with advice and instructions for use will result in the measures described under 'Sanctions'.

Extra information

- 'Chemiekaarten' (chemical safety cards) and Material Safety Data Sheets (MSDS) provide information about PPE.
- Via a TU PC it is possible to access Chemwatch (www.chemwatch.com), a database with MSDS and chemical cards (<http://chemiekaarten.sdu.nl/chkonline/>).
- The following are of use when choosing PPE: *Praktijkgids Arbeidsveiligheid* published by Kluwer (the DSO has a copy for inspection) and the *Arboinformatieblad Persoonlijke Beschermingsmiddelen*, a guide to PPE, which can be downloaded from the BTUD site, <http://aibladen.sdu.nl/do/welkom>.

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