

12. GENERAL SAFETY PRECAUTIONS

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12.2.1 Aim: To describe University regulations, general rules and practical means by which the safety culture of University buildings on the Edinburgh bioQuarter campus is fostered, promoted and, ultimately, enforced.

12.3.1 Introduction: Poor housekeeping is a major cause of accidents; and, in general, a tidy working area is a safe area. Tidy habits of working in laboratories and offices undoubtedly make for a safer working environment. To that end, the policy described in this Section is essentially one of good house-keeping; and, if observed, will result in a safer and healthier working environment for all people based within the University's buildings on the Edinburgh bioQuarter campus.

12.3.2 General and special safety precautions for University laboratories on the Edinburgh bioQuarter campus are described in Sections 13 and 14 of this Manual. Safety precautions for offices and communal areas are described in Section 30 of this Manual.

12.4.1 Policy: Without exception, laboratory coats **must be worn** (properly fastened up) by everyone working in laboratories designated at Containment Level 1 and above, and suitable equivalents worn in all tissue culture and radiation laboratories. These rules are not relaxed outside hours of expected buildings occupancy (See Section 9 of this Manual for definitions).

12.4.2 Laboratory coats, gloves *etc* **must be removed** before entering offices and write-up areas, areas where food is being prepared or consumed, and all public areas of the buildings, including lecture theatres and seminar rooms, "dry labs", common rooms, stores, reception areas, and the medical library.

12.4.3 Eating and drinking (including bottled water) is permitted **only** in common rooms, offices and staff break rooms.

12.4.4 Areas of laboratories which are designated as write-up benches are still deemed to be laboratory space in respect of the mandatory rules set out in paragraphs 12.4.1 to 12.4.3 above (*i.e.* although laboratory coats and gloves are not to be worn within write-up areas, neither food nor drink may be taken into nor consumed in these areas).

12.4.5 Communal workings areas and equipment rooms (such as cold rooms and centrifuge rooms), must be kept clean and tidy.

12.4.6 Smoking is *strictly prohibited* within all University buildings, including those on the Edinburgh bioQuarter campus. The smoking policy is set out in Section 3 of this Manual.

12.4.7 Where specified as a requirement, log books for instruments *etc* must be completed **fully and legibly**.

12.4.8 *All* accidents and incidents, dangerous occurrences, including “near misses”, **must** be reported as soon as possible after the incident, either by the person involved or by someone in attendance. A form is available to complete on-line from the University’s Health & Safety Department web site at:

<https://www.ed.ac.uk/health-safety/accident-reporting>

Further information on accident and “near-miss” reporting is contained in Section 11 of this Manual.

12.4.9 Substances intended for use in laboratories *must* be assessed for any potential hazard, and relevant Risk Assessment forms completed whenever necessary (see Section 8 of this Manual), before the substances are made available for use. As part of the induction training process for all new workers, the person in charge of each laboratory will show the new workers from where these forms may be obtained and where completed versions should be filed. Workers *must* familiarise themselves with all relevant safety arrangements before starting any experiment, and additional risk assessments may be required for any new chemicals or equipment that they will be using.

12.4.10 Health and safety signage is displayed to warn of hazards and/or to prohibit unsafe activities, and compliance is expected. Examples in use within University buildings on the Edinburgh bioQuarter campus are shown at Appendix 8 to this Manual.

12.4.11 Flammable and combustible materials must *never* be stored or left unattended on emergency exit routes or blocking immediate access to fire alarms and fire-fighting equipment or in proximity to electrical switchgear.

12.4.12 Water and any piped gas or liquid supplies should always be turned off when not required, and especially at the end of the working day. This is even more important in anticipation of prolonged periods of shut-down, such as University holidays when, in addition to the safety considerations, considerable monetary savings can be made in the context of power-saving.

12.4.13 Equipment connected to electrical supplies should be switched off when not in use. Electrical sockets should be switched off at the wall and appliance plugs removed when the equipment is not in use, especially at the end of the working day. This is even more important in anticipation of prolonged periods of shut-down, such as University holidays when, in addition to the safety considerations, considerable monetary savings can be made in the context of power-saving.

12.4.14 All spillages, regardless of scale, *must* be cleaned up immediately, by a person who fully appreciates the special hazards which the spilled material may represent (though this applies equally to spillages of benign material such as water which may still create some potential for slip/trip injuries). Further guidance is contained in the Key Emergency Actions checklist to be found towards the front of this Manual.

12.4.15 Apparatus and other materials that are not immediately required should always be returned to a safe storage place, and unwanted materials (particularly toxic and combustible and flammable items), should be disposed of safely and promptly.

12.4.16 Daily checks **must** be carried out on any equipment in continuous use. Where applicable, a notice intimating “Apparatus working overnight” must be placed on the door leading into a laboratory where equipment is being used in that manner.

12.4.17 Any equipment which does not conform to accepted safety standards will be withdrawn from use.

12.4.18 Hazardous equipment *in use*, including electrophoresis apparatus and microtome/cryostat machinery, **must** be appropriately and clearly labelled as such.

12.4.19 All electrical equipment in use within the buildings **must** display an up-to-date electrical safety (portable appliance) test label (see Section 14 of this Manual). On no account should plugs or fuses be changed by anyone apart from qualified and specifically authorised staff.

12.4.20 Use of multiple socket distribution boards is **not** recommended. Where there are deemed unavoidably necessary, all items of equipment which are connected to them **must** have a label on the plug indicating the maximum power requirement (in Amps) of the equipment, so that the total power demand on the extension can be easily and quickly obtained to ensure that it will not be overloaded (Amps = Watts/Volts). Trailing cable flexes must not be “daisy-chained” to extend reach between power supplies and equipment.

12.4.21 Members of staff introducing a temporary visiting worker to their laboratories *must* first report their presence to Reception staff serving their building before the visitor commences work. The visitor **must** also be briefed regarding relevant aspects of health and safety arrangements (including the URL for the on-line version of this Manual, and be given access to any training and local rules pertaining to the areas within which he or she will be working), and the relevant member of staff **must** ensure that the appropriate forms relating to the registration of their visitors are completed and communicated to the relevant School/Deanery office. The nature of the work which they will carry out, and the services they will be using, should be reported to the relevant laboratory manager *prior* to the visitor starting work.

12.4.22 It is **essential** that the relevant Safety Advisers and locally-based Fire Wardens are made aware of the presence in their respective areas of any person with a mobility, sensory or cognitive impairment, or other significant impairment that might make it difficult for him or her to perceive or react promptly to a buildings emergency, in order that a specially tailored Personal Emergency Evacuation Plan

(PEEP) can be formulated for that person. This applies whether the person is a member of staff, a student, a visitor or a member of the public. Further information on this matter is contained in Sections 5 and 6 of this Manual.

GENERAL RULES FOR LABORATORY WORKERS



DO

- *Always* wear the laboratory coat that has been provided when you are in a mandatory lab coat area, and see that it is properly fastened up. Keep your laboratory coat apart from your outdoor clothing, and do not take your laboratory coat home to wash. Do *not* wear your laboratory coat in the staff room, office or canteen; take it off when you go for your break.
- Wash your hands regularly, and always when you have finished work or stop for a break. Before you start work, *always* cover cuts and grazes (however small) with a waterproof dressing until the wound is fully healed.
- When cleaning sink areas, *always* wear gloves.
- *Immediately* report any accidents or incidents (including if anything is leaking or knocked over) to the person in the laboratory or your supervisor.



DO NOT

- Do *not* attempt to clear up after an accident unless it is clearly safe to do so. Never pick up broken glass with your fingers; use a dustpan and brush. If there is no-one around to tell you whether or not it is safe to clear up a spillage, then you should deploy some hazard warning signs and report to your laboratory manager.
- Do *not* eat, drink, smoke, chew or apply cosmetics in the laboratory. Never put *anything* in your mouth whilst you in the laboratory. This includes pens, pencils, tools, cables, fingers, *etc.* Do *not* take food, drink, chewing gum, overcoats *etc* into the laboratory. These *must* be left outside the laboratory.
- Do *not* touch anything whilst in the laboratory unless required to do so to carry out your work and you have been told it is safe to do so by your supervisor. In particular, do *not* touch anything on the benches and only move things on the floor if you have been told it is safe for you to do so. Do *not* touch, empty or move things in the laboratory sinks unless you have been told exactly what you can or cannot do.
- *Never* attempt to clean up a spillage of unknown material, no matter how harmless it may seem (*e.g.* many hazardous chemicals seem quite innocuous,

but may damage your eyes, skin or lungs); *always* seek advice from laboratory managers if there is a spill.



IF

- If you have an accident and injure yourself, especially if you break the skin or get something in your eye or mouth, you *must* report the occurrence to your supervisor at once, proceed to the Accident and Emergency Department of the Infirmary if necessary for further support, and see that it is recorded in the form of an Accident Report (see Section 11 of this Manual). If you become ill at a later time, you should tell your doctor where you work so, if necessary, they can talk to someone in the University about what you do. Further information concerning accidents involving medical and laboratory sharps is contained in Section 11 of this Manual
- If you accidentally spill a chemical on your skin, *immediately* expose the affected area to running water for approximately 15 minutes, or until a colleague has provided or obtained knowledgeable assistance. If you have to go to hospital, report the name of the substance, as shown on the label from the bottle/carton, to attending medical staff.
- If you have any doubts that it is safe to start or continue work, you should *not* start or continue until the matter is sorted out. You should report any such problems to your supervisor.

12.5.1 Further Information: General safety precautions are described also on the University's Health and Safety web site:

<https://www.ed.ac.uk/health-safety/policy-cop/cop>

12.5.2 General and special safety precautions for University laboratories on the Edinburgh bioQuarter campus are described in Sections 13 and 14 of this Manual

12.5.3 The College's Health and Safety Manager for UofE buildings on the EbQ campus (Ext: 26390 or email: lgm@staffmail.ed.ac.uk) or the University's centrally-based Health and Safety Department may be contacted for further advice (Tel: 514255 or email: Health.Safety@ed.ac.uk). If the query relates specifically to biological safety matters, then contact the University's Biological Safety Adviser (Tel: 514245 or email: Biosafety@ed.ac.uk) or, for radiation matters, the University's Radiation Protection Adviser (Tel: 502818 or email: Radiation@ed.ac.uk).

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