

## 11. Spillages

Despite precautions taken to avoid exposure to hazardous materials during normal use, unforeseen accidents may occur in which release of biological agents or chemicals occurs unexpectedly. An immediate response is required to:

- remove workers from the affected area;
- identify the nature and extent of the risks created by the spillage; and
- clean up the spillage.

In order to achieve this, staff from each laboratory need to ensure that:

- risk assessments are available in which appropriate clean up procedures for spillages of hazardous compounds is incorporated;
- materials and protective clothing are available to clean up the spillage;
- suitable persons are involved in the cleaning up of spillages; and
- resultant waste is disposed of suitably.

Any students (PG or undergraduate) involved with a potentially dangerous spillage must evacuate the area immediately and contact their supervisor. The supervisor should assess the extent of the risk. Small spillages of bacteria can be cleaned up and disinfected without causing too much disruption. Spillage of small quantities of chemicals that give off toxic vapours, however, is likely to require a greater extent of evacuation and notification to the Spillage Response Team.

### ***Response to spillages***

- 1) If the spillage involves a hazard by breathing, immediately evacuate the affected room and the immediate vicinity or, if more serious, an entire room, corridor or building.
- 2) For less serious spills, evacuate the immediate area and prevent people from regaining access. For minor incidents, simply clearing the area near a bench may be sufficient, otherwise, for more serious incidents, complete evacuation of entire rooms, corridor or building may be necessary. Close doors leading to the area and clearly identify spill with a sign. Where necessary, use tape across door entrances to prevent unwanted entry.
- 3) Each laboratory should have access to a spillage kit, containing gloves, apron, absorbent pads, disinfectants, *etc.* for 2 people (assistance may be required). Emergency chemical spillage kits are located on levels 1, 2, 4 and 6 of the IMS building. Higher risk laboratories are also encouraged to supply their own.
- 4) Consult the risk assessments from the laboratory for hazard information on released materials. Ability to mount an appropriate spillage response should be planned at time of ordering.
- 5) Contact your supervisor/Principal Investigator or an IMS Safety Coordinator for advice. For more serious incidents, the IMS Spillage Response Team should be notified. Only those trained in the use of respiratory protective equipment should use it. Self-contained breathing apparatus (*i.e.* with cylinders of

compressed air supplying a face mask) must only ever be used by authorised users who have undergone full training and, where necessary, refresher training. Two sets of breathing apparatus are available, one in the IMS first aid room (1:56) and the other in the Polwarth building first aid room (0.004). Both are maintained by one of the authorised users listed in the table below.

**Authorised users of breathing apparatus (updated in November 2016):**

Name	Location	Tel No.
Claire Walker	IMS	7556
Linda Robertson	IMS	7341 / 7365 / 7429
Jonathan Pettitt	IMS	7516 / 7519
Richard Clark	IMS	7311
Gary Cooper	Rowett	8654
Nick Hayward	Rowett	8758 / 8759

In the event of an spillage emergency:

- Evacuate the area and seal off access to the area.
  - In office hours: contact one of the authorised users of the breathing apparatus (see Table above). Outwith office hours: contact Security (ext. 3939) Identify the location and the substances involved in the spillage. Let them decide whether the fire brigade need to be called.
  - Complete an online accident investigation report for incident (see [section 8](#))
- 6) If the spillage can be cleaned up without any hazard to breathing, wear suitable protective clothing (safety goggles, gloves, laboratory coats, aprons, overshoes; see [procedure P.31](#)) from spillage kits in the lab/corridors. Work in pairs where necessary.
  - 7) Dispose of hazardous waste in a suitable fashion (see [section 14](#)). Any waste contaminated by hazardous chemicals needs to be securely contained in bags or bins, and collected for incineration. Microbiologically contaminated waste needs to be fully disinfected or sterilised by autoclaving before disposal.
  - 8) Emergency procedures following the release of living organisms are dealt with in [procedure P.19](#).
  - 9) Complete an accident investigation report on the incident (see [section 8](#)).