

The Hong Kong Polytechnic University  
Department of Civil and Environmental Engineering  
Water and Waste Laboratories

# Safety Guidelines

Lab-in-charge : **Prof. Ben SY Leu ext. 8322**

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## **Safety Guidelines in the Water and Waste Laboratories**

Laboratory users are required to sign in acknowledgement that he or she had carefully read and will abide by this set of safety guidelines.

Laboratory users are also required to pass the online safety test and register themselves in the Laboratory Safety Web-based Self-learning and Registration System of Health, Safety and Environmental Office (HSEO). Laboratory staff has the right to request laboratory users to provide proof of such registrations when needed.

Self-learning and Registration System link: <https://www.polyu.edu.hk/hseo/our-services/hsetraining>.

1. Read carefully the safety posters around the laboratories and on the various analytical instruments and equipment.
2. Wear laboratory coats and fully-covered shoes in the laboratories.
3. Laboratory coats and safety equipments may be signed out from the laboratory technicians.
4. Put on safety goggles and gloves when working with reactive chemicals, such as concentrated acids.
5. Handle toxic, flammable and volatile chemicals in the fume cupboard.
6. Handle microbial cell cultures in laminar-flow cabinet or anaerobic cabinet as appropriate.
7. All chemicals and microbial cell cultures should be clearly labeled.
8. Don't use any chemicals from unlabeled containers.
9. Keep all chemicals on the proper shelves in the chemical store immediately after use.
10. Don't approach or touch compressed gas cylinders unnecessarily.
11. Approach a laboratory technician for queries regarding operation of equipment.
12. Don't operate the large equipment independently unless permitted.
13. Don't attempt to try out equipment alone.
14. Sign out equipment operating manuals and analytical procedures, and study carefully before carrying out any experiments.

15. Flush small quantities of liquid wastes with plenty of water down the sink only if necessary.
16. Dispose of concentrated acid and alkaline wastes, and large quantities of organic wastes in designated receptors.
17. Dispose of broken glassware in designated broken-glassware receptors.
18. Wash all glassware after use and discard waste papers in trash baskets.
19. Don't take equipment away from the laboratory without informing the laboratory staff.
20. Keep benches clean and tidy after experiments.
21. Don't point a test tube containing reacting chemicals towards yourself or another person.
22. Don't leave experiments unattended.
23. Don't meddle with other's experiments.
24. Don't smoke, eat or drink in the laboratories.
25. Don't use audio headphones while carrying out experiments.
26. If there are any problems and troubles in the experiments, contact laboratory technicians immediately.

#### Emergency Instructions for Water and Waste Laboratories

1. Observe and study the escape routes posted on the main entrance of the laboratories.
2. First aid boxes and fire extinguishers are located beside the entrances of the laboratories for minor injuries and minor fire hazards.
3. In case of accidents leading to major physical injuries, immediately notify the laboratory staff, and then seek help from the campus clinic.
4. In case of accidental contact of the eye with chemicals, wash it immediately with large amount of water from the emergency eye-wash fountain besides the entrances of the laboratories, until medical help is available.
5. In case of major fire, inform all persons in the laboratories, leave the vicinity and call 27667999 (Security and Fire Protection Section).

6. In case of spillage of volatile or any unfamiliar chemicals, avoid contacting the chemicals or inhaling the fumes. Inform laboratory staff and leave the vicinity.
7. In case of any serious injuries and fire, immediately call 999 (Police and Fire Station) and 34008396 (HSEO).

For Emergency Call:

The Campus Security Control Centre by dialing telephone no. 27667999 (emergency line) or 27667666 (24 hours). If medical assistance is required during office hours, call the Campus Health Clinic (telephone no. 27665433) for advice. If the condition is serious, dial 999 for help at the same time to avoid delay in treatment.

- Responsible technical staff, at Room ZS1102c (telephone no. 27666077).
- Dr. D.X. Xuan, Laboratory Manager, at Room ZN918 (telephone no. 34008320; mobile no. 55790521).
- Prof. Ben SY Leu, Laboratory-in-charge at Room ZS923 (telephone no. 34008322).
- Dr. Nicole SN Yiu, Departmental Health and Safety Officer, at Room ZS945 (telephone no. 34008445).

Accident/incident report form should be completed and send to the Health, Safety and Environment Office in a sealed envelope through the Head of Department within 72 hours of the accident/incident if required.

#### Outside- Normal Hour Laboratory Work

1. Don't work alone in the laboratories.
2. Students must work in the present of at least one laboratory staff.
3. Research assistants and graduate research students must work in the presence of a laboratory staff, another research staff or a research student.
4. Apply to carry out all after-hour laboratory work by completing the "Application Form for After-Hour Laboratory work" request form, which is available from the Department's General Office, from the laboratory staff or direct download from Water and Waste Laboratories' webpage: <http://www.cce.polyu.edu.hk>.
5. For regular after-hour laboratory work, submit one application form for a period no more than one month. After-hours laboratory work is generally not allowed after 10:00 pm.

6. Don't keep unauthorized replica of the laboratory keys.

### Non-routine Laboratory Experiments

If any user needs to perform experimental works that involves completely new processes, users must conduct a risk assessment along with the project PI/Supervisor and Departmental Health and Safety Officer (DHSO). A risk assessment form endorsed by DHSO should be submitted to Laboratory-in-charge for record.

Users conduct unauthorized experiments would be banded from using the laboratory until approval is reinstated by Head of Department.

### Water and Waste Laboratories floor plans

