This is an edited presentation from the last Biology Department Safety Session given in May 2013.
BUILDING HOURS

Building Director:
Prof. Rudiger Krahe (as of June 1st 2013) – ext -8065

Deputy Building Director:
Carole Smith (as of July 19th, 2013) – ext -6406

Normal Hours: OPEN from 08h00-18h00 (including Summer Fridays)

During Fall and Winter Terms
OPEN from 07h45-22h15.

Closed all day during weekends and holidays.
HOW TO GET BUILDING ACCESS DURING SILENT HOURS?

There are several different access levels in this building.

If you have a valid McGill ID card, we will activate it for this purpose.

If not, we can issue a temporary Blank Access card.

In both cases you need approval from your supervisor.

Please see Carole Smith in W4/14 for access
BUILDING ACCESS

- Building access during silent hours is a privilege not a right.
- Do not let people in behind you, have them use their own cards.
- You are responsible for your guests.
- You must return your keys & and temporary access card to the deputy building director before leaving.
- Any key loss must be reported immediately to the deputy building director (W4/14) as well as supervisor.
RIGHTS UNDER THE ACT RESPECTING THE OCCUPATIONAL HEALTH & SAFETY

- Right to know about the workplace hazards
- Right to participate in decisions about personal health and safety
- Right to refuse unsafe work
Department Safety Committee

- Prof. Tamara Western (Chair)
- Maria Colonna (Administrative Officer)
- Carole Smith (Web & Communications, Deputy Building Director)
- David O’Connor (Grad Student Representative)
EMERGENCY CALLS

Big trouble (fire, police, ambulance…) dial 911 & McGill Security at (514) 398-3000

Big mess (hazardous materials spills, floods, critical breakdown of plumbing…) (514) 398-3000

FCC (Facilities Call Centre) for building maintenance/service problems (514) 398-4555

Porter’s office (514) 398-5078
Porter’s pager (514) 741-3722

Janitor’s pager (514) 221-5571

How to (clean up spill…) (514) 398-4563 (McGill Safety Office)

Where is nearest CPR person… See Info on Emergency Poster
EMERGENCY POSTER

Visibly posted in every laboratory and updated yearly.

Contains important information such as:

- Emergency Phone Numbers
- Nearest Safety Equipment
- People in Charge
- Useful Website for MSDS etc...
- Safety Information
- CPR/First Aid
FIRE ALARMS

Know ahead of time where to find one.

To activate, pull lever in the centre.

Small delay before ringing starts, evacuate immediately.

Never take elevators: they go down to 2nd floor, open doors and stay there.

Note: In the event of a hostile intruder situation, DO NOT pull the alarm.
AUTOMATED EMERGENCY DEFIBRILLATOR (AED)

Closest location

- Stewart north block, main lobby (on the wall next to the elevator #17 – see following picture).
- Bellini building, level 4, facing the elevators.
- For instructions on how to use AED:
  - http://www.mcgill.ca/ehs/training/firstaid/aed/presentation
AUTOMATED EMERGENCY DEFIBRILLATOR (AED)
In hallways, on every floor 
and also in many laboratories.

Activate by pressing hand or foot lever.

Use hands to keep eyes open during rinsing.

Rinse for 15 minutes at least.

Go see a doctor immediately.
EMERGENCY SHOWERS

- Know in advance where to find one
- One is never locked in N6/18
- **Hands-free showers** in N3/17, N4/2, N5, W5, and W2 hallway
- Also in the Bellini Bldg, second floor corridor
- Hand held drench hoses in other locations

In case of spill:

- Quickly grab an extra lab coat
- Go to the nearest shower
- Remove contaminated clothes
- Important to rinse yourself for 15 minutes
GOOD LABORATORY PRACTICE

- **Lab Coats**
  Appropriate protective clothing (e.g. lab coats, aprons, coveralls) is required in all areas where hazardous materials are handled.

- **Eye and Face Protection**
  Required in all areas where hazardous materials or substances of an unknown nature, are stored, used or handled and in areas where the possibility of splash, flying objects, moving particles and/or rupture exist. In all areas where there are eye hazards e.g. UV or laser light.

*Ref: Stated policy at the Nov. 2004 University Laboratory Safety Committee*
REMOVE YOUR GLOVES AND LAB COATS

…when you are leaving your working area even if YOU know they are clean, other people don’t and they get annoyed!)
FIRST AID KITS

- For MINOR physical harm (cuts and burns...)
- Ask for assistance from CPR/First Aid trained people
- If kit content is depleted, inform room owner
  (missing items can be purchased on-line at the EHS website)

An incident report form must be available inside at all times and must be filled out within 24 hours.
FIRE EXTINGUISHERS

Different types for different purpose: always refer to their respective labels

- **CO2 fire extinguisher** (left one)
  - Fixed on wall near door
  - Good for most types of fires (including electrical fire)

- **Water fire extinguisher**
  - Hallway fire hose cabinet
  - Good for paper & cardboard type of fire
  (not for electrical fire)

- **Multipurpose fire extinguisher**
HOW TO USE

Pull locking pin
Aim low and point nozzle at base of fire
Squeeze handle
Sweep from side to side until fire is out

Bring to porter's office, N2/1, to have it replenished
FIRE ON YOU

- Stop what you are doing
- Drop to the floor
- Roll until fire is out
- Use emergency shower for cold water
- Go to the Hospital

FIRE IN BUILDING

- Shout “Fire” repeatedly
- Pull the fire alarm
- Evacuate quickly
- Get out using stairs not elevator and follow instructions of evacuation monitors
- Call 911 from a safe location, then call 514-398-3000 (to direct emergency vehicles to location)
- Stand outside away from building
SPILLS IN EYE
- Use the eyewash for 15 minutes
- Go to hospital

SPILLS ON YOU
- Use the emergency shower
- Take clothes off
- Rinse for 15 minutes
- Go to hospital

LARGE SPILLS ON FLOOR
- Evacuate all present
- Close door and Label it "DANGER"
- Call "3000"

SPILLS OF BIOHAZARDS & RADIOISOTOPES
- Do NOT clean up yourself if you don’t know how
- Call "3000" for McGill emergency personnel
WASTE DISPOSAL

Follow the Laboratory Safety Manual and Waste Management Program procedures.

Refer to the following web sites:
  http://www.mcgill.ca/ehs/
  http://www.mcgill.ca/wmp/

The Biology Weekly will list special waste pick-up announcements

- Keep waste to a minimum
- Waste disposal is your responsibility; once your research is finished, YOU must label, package and dispose of your samples
- Mishandled waste will be returned to sender at owners expenses
Biohazard Waste for Incineration:

- Animal carcasses
- Orange biohazard bags that have not been autoclaved
- Rigid containers containing contaminated sharps (must be capped and placed inside boxes)

Get keys from Receiving area (room N3/17) and fill out their logbook. Bring into cold room located next to cylinders area in loading dock.
Empty boxes available for your lab

Must be taped well, properly labeled and brought down to biohazard waste cold room when 2/3 full.
All chemical waste containers must be:

- Properly labeled.
- Properly logged.
- Less than 2/3 full

**Chemical Waste Pick-Up:**

Stewart occupants must bring their containers to the loading dock, get a key from “RECEIVING”, log into a book & put them inside waste room (N3/19D).

(The above does not apply for the Bellini occupants who must bring their waste directly to Waste Management)

If an on-site chemicals pick-up is required, fill out a pick-up request online with Waste Management or contact them directly (ext. 5066).
Be careful, not all corrosives are alike!

- Discriminate bases from acids
- Discriminate organic acids from oxidizing acids
- Never pour concentrated solutions
- Never mix
- Always read the label and MSDS carefully
CHEMICALS and ISOTOPES WASTE
- Get containers free of charge from Stores, N3/17
- Do not mix
- Colour coded for each type of chemical
- Label them properly
- Fill out Biology Stores log book

SHARPS WASTE
- Use sturdy plastic containers
- Dispose according to hazardous nature of product

BROKEN GLASS WASTE
- Use rigid plastic containers, separate from regular garbage; label as “broken glass”
- Dispose according to hazardous nature of product

EMPTY SOLVENT BOTTLES WASTE
- Evaporate any volatile leftover in fume hood, rinse 3x with tap water, let dry, label as “garbage”
Good Housekeeping = Enjoyable Environment

- Absolutely no food or drinks in laboratories
- Clean up after yourselves
- No piling up of empty soda cans, dirty dishes or trash food in offices
- Use building recycling containers
TUNE IN TO LAB SAFETY!

Are you aware of your surroundings?

Personal music devices should be used with caution in the laboratory. There are many sounds in the lab that you should be tuned into in order to stay safe.

Please use headphones responsibly.

McGill
Department of Biology Health and Safety Committee
COMMON AREAS NOT COMMON DUMPS !...
No transportation of hazardous waste materials in the Biology departmental van!
CHEMICAL FUME HOODS

- Always check air flow before using it.
- Sash door should be 2/3 down.
- Attach a piece of tissue to indicate the airflow strength and direction.
- Do not clutter.
- Report problems to McGill dispatcher at 4555.
- Highly hazardous chemicals (perchloric acid) can only be used in a wash-down fume hood.
CHEMICAL FUME HOOD

A fume hood sucks the bad fumes away from you and sends it to the outside on the roof.
LAMINAR FLOW HOOD

A laminar flow hood (clean bench) is the opposite of a fume hood, it blows air at you to protect your samples from contamination. Exhausted air goes through a HEPA filter but it is NOT a Biological Safety Cabinet.
BIOLOGICAL SAFETY CABINET
CLASS I

- Open-fronted.

- Protects operator and environment.

- For work with low and moderate risk agents.

- For cases where product protection is not critical.
BIOLOGICAL SAFETY CABINET
Class II

- Open-front
- Protects operator, product and environment from particulate contamination
- Provides inward airflow
- HEPA-filtered supply and exhaust air
- Has four different designs for work with low to moderate risks biological agents, minute quantities of toxic chemicals and trace quantities of radionuclides

HOWEVER care must be exercised in selecting the correct Class II design for these purposes
BIOLOGICAL SAFETY CABINET
Class III

- Totally enclosed, gas tight with glove ports
- Provides the greatest level of protection for operator and product
- Maintained under negative air pressure
- Supply air is HEPA-filtered and exhaust air has two HEPA filters in series
- For work involving HIGH RISK PATHOGENS
You are a Biology member, your work requires the use of an autoclave and your lab does not have one available?

- Use the one in room W1/6.

- Ask Guillaume Lesage (-5414) for other availabilities
NEED LIQUID NITROGEN OR DRY ICE?

- From Biology Receiving - N3/17
- If you are unsure on how to use the tank, please ask Joe or Guy in Receiving
- Fill out log sheet
- Liquid nitrogen is VERY cold wear heavy gloves & face mask.
- Turn valve SLOWLY
- Use special containers that will resist very cold temperatures
NATURAL GAS

- If you smell gas, **check that all valves** have been completely turned off
- **Call 3000** if the odour persists
- **Call 911** if there is a confirmed gas leak
- **Never, never leave a flame unattended**
ASBESTOS

- Some areas in this building have asbestos insulation on the main beams above the ceiling tiles.

- Asbestos may cause health problems if inhaled for a long period of time.

- McGill tradesmen are trained and equipped to work safely but independent contractors may not. If you see someone working above the ceiling tiles not using proper protective measures, you should contact the building director.

(See following slide for photo of asbestos)
SAFETY MANUALS & VIDEOS

Information can be downloaded from the following website:
http://www.mcgill.ca/ehs/
RADIATION WORK

- Everyone intending to work with radioisotopes. **MUST take the “Radiation Course”** followed by an exam and certificate

- Course lasts one day

- **Exam is compulsory** for all staff and students under McGill’s permit

- Several courses offered each year

- Dates advertised on EHS website
WORKING WITH ANIMALS?

The McIntyre Animal Centre offers a series of lectures and workshops twice a year entitled “Use of Animals in Research and Teaching” covering the following topics:

- McGill policies on the use of animals
- Personnel health & safety
- Zoonoses
- Environmental and disease factors affecting research results
- Animal health and welfare
- Safe handling procedures

All staff and students working with animals must attend.
CPR/FIRST AID TRAINING

- You can save a life
- Offered every month at McGill
- Lasts two days
- Free for McGill staff and faculty, pending approval by Environmental Health & Safety
- Additional first aid courses specific to fieldwork such as “Water Rescue” are available upon request.

For more information visit the following address: http://www.mcgill.ca/ehs/ then click on “training”.
STUDENT HEALTH CLINIC

- For students only
- Health and mental clinic in the Brown building on McTavish street
- Not for emergencies, better to have an appointment
- Bring your Medicare and McGill ID card
Accidents /incidents/occupational diseases must be reported.

Fill out an accident report and bring to W4/14 or to EHS within 24hrs. Forms can be downloaded from the Biology Dept Safety Page website.