Department of Pathology and Laboratory Medicine
UBC Site

Faculty/ Staff / Student
Safety
Orientation & Refresher Manual
Important Emergency Numbers

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>FIRE</td>
</tr>
<tr>
<td>0000</td>
<td>HAZARDOUS MATERIALS SPILL</td>
</tr>
<tr>
<td>0000</td>
<td>AGGRESSIVE PERSON</td>
</tr>
<tr>
<td>2-7225</td>
<td>FIRST AID</td>
</tr>
<tr>
<td>2-7225</td>
<td>HOSPITAL SECURITY</td>
</tr>
</tbody>
</table>

Other Emergency numbers:

- **UBC campus first aid** (when you are not in the hospital) (604) 822-4444
- **Poison Control Centre** (604) 682-5050
- **Vancouver Hospital, UBC site, Emergency Dept.** (604) 822-7222

Non-Emergency Numbers:

- Health, Safety and Environment (604) 822-2029
- Biosafety Officer (604) 822-7596
- Radiation Safety Officer (604) 822-7052
- Chemical Safety Officer (604) 822-5909
- Ergonomics Program Officer (604) 822-9040
- Trouble calls (Hospital Maintenance) (604) 822-7523
Faculty/Staff/Student Safety Orientation Manual

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Department of Pathology & Laboratory Medicine Safety Policy

“The Department of Pathology and Laboratory Medicine is committed to providing a safe, healthy, and secure environment for its faculty, staff and students, and to acting in an environmentally responsible manner.”

Department of Pathology & Laboratory Medicine Safety Committee – UBC site

Structure & Function:
The safety committee for the department of Pathology UBC site is comprised of representatives from each lab group and work area. There are two elected co-chairs. (See table below for the members). It meets once a month to discuss and address safety issues and concerns for the members of the department at UBC.

Function:
1. To identify situations which may be unhealthy, or unsafe for workers and advise on effective systems for responding to those situations.
2. To deal with complaints relating to health and safety of workers
3. To consult with workers and employers on issues related to health and safety
4. To make recommendations to the employer and the workers for improvements of occupational health & safety
5. To advise the employer on programs and policies required under the regulations for the workplace & monitor effectiveness
6. To advise the employer on proposed changes to the workplace or the work processes that may affect the health and safety of workers.
7. To ensure that accident investigations and regular inspections are carried out as required by this part and the regulations
8. To carry out other duties and functions prescribed by regulation.
1. Responsibilities of the employee

- Know how to respond to emergency situations
- Know the hazards associated with your workplace and how to reduce them and protect yourself and your co-workers.
  - Know how to locate MSDS sheets and other safety information.
- Know when and how to report incidents in which either a worker was injured or in which a worker could have been injured
- Make sure that you have received appropriate training for the types of hazardous materials present in your area. (Training tracking record). Report to supervisor any lack of knowledge that is needed to perform duties.
  - Be aware of the UBC policies that pertain to safety and the environment.
- Make sure that you label all of your materials clearly and have posted procedures for the safe operation of equipment.

2. Responsibilities of the supervisor

- Making sure the employees have a safe place to work in
- Making sure that the employee has received adequate training in the safe operation of equipment and hazardous materials present in the work environment.
- Making sure that the employees are utilising the safest possible work habits (no food and drink in lab, lab coats and gloves used appropriately, respiratory masks fitted etc. materials handled properly and disposed of properly)
- Make sure that safety inspections are conducted on a regular basis (monthly). Conduct periodic checks to make sure that all aspects of safety are addressed. Make sure that chemical inventories are done on a yearly basis and that chemicals are stored properly and safely.
- Know the appropriate reporting procedures for incidents and hazardous material spills and make sure that this is completed if and when needed.
- Know the UBC policies pertaining to health, safety and the environment, know the WCB regulations which pertain to your workplace, and the bylaws which impact the disposal of waste materials.
Emergency Procedures
These differ from usual UBC procedures because we are located in the hospital and we need to follow their procedures in order to ensure the safety of all the occupants in the building.

First Aid
• Dial “2-7225” – Security
• Identify yourself, the exact location and the nature of the injury
• Remain at the scene until first aid arrives

The designated First Aid attendant will:
• Proceed to accident scene on priority basis
• Administer first aid
• Arrange suitable transportation

Do not forget to fill out a UBC incident/accident report form, faxed to HSE and have the incident investigated by at least one member of the safety committee as well as the supervisor.

Hazardous Material Spill (Code Brown)
Immediately upon discovery of a hazardous spill and:
• There is uncertainty as to the nature of the material or
• The material is presumed to be hazardous:

The following action must be taken:
• Call security – Local 0000. Say clearly “There is a spill of ___________(identify material if known & quantity” at _____________ (give exact location). Notify security that you will be contacting the UBC Health, Safety & Environment immediately.
• Phone Health Safety & the Environment and give them the above information as well.
• Clear the area of personnel
• Close off area to prevent traffic from moving through
• Deal with the spill if you have received training and are comfortable with dealing with the spilled substance.
• Complete and fax a UBC Spill Reporting Form (See section on UBC spill reporting procedures. Appendix A.)
Fire (Code Red)

When you see smoke or fire:

People:  remove people from immediate danger
         Close doors in the area

Alarm:   Pull fire alarm
         Notify other staff in the area

Telephone:
“0000” and say: “Fire, _________(building), _________(floor), _____(area)

Evacuate:  Check with lab / area for their evacuation plan

Extinguish:  Only attempt to extinguish if it is safe to do so

Account for people in your lab
Take directions from public address announcement and from security.

If you hear:

<table>
<thead>
<tr>
<th>Alarm bell ringing intermittently (3-4 seconds)</th>
<th>Alarm bell loud &amp; continuous</th>
<th>Alarm bell pause followed by three gongs or PA announcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweep through your area and look for hazards</td>
<td>EVACUATE</td>
<td>All Clear</td>
</tr>
<tr>
<td>Report to safety rep from your lab</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CODE RED
FIRE – LOCAL 0000
Earthquake Response Procedure

The first indication of an earthquake may be:
- A low or loud rumbling noise
- A sudden violent jolt
- A shaking or moving of objects
- Any combination of the above

What to expect:
- Ruptured water lines
- Possible loss of suction/vacuum
- Electricity may be lost (auxiliary power may or may not function
- Fire & chemical spills may occur
- Structural damage to walls, ceiling and floors could occur
- Possible loss of telephones

What to do Immediately:
- Protect yourself
- Move away from Large Windows and objects which may fall. Drop to the floor and cover the back of your neck with your hands. If you are able, get under a heavy table or desk.

What to do when the shaking stops:
- Assess the area for immediate danger such as fire, flooding, chemical spills
- Assess staff/faculty/ students/ visitors for injuries
- Give first aid to the most seriously injured
- Get severely injured people definitive care
- Report to Emergency, Admitting any casualties and damage
- Clear away hazardous debris
- Put all telephone receivers back on their hooks
- Check for anyone who may be trapped
- Calm staff & students. Tell them to remain in intact rooms or corridors.
- Prepare to evacuate when the order is given or remove yourself if you perceive imminent danger.

If you smell gas do not flick power switches
- Prepare for aftershocks
Aggressive Person (Code White)
Assistance with Aggressive/Disruptive Behaviour

Disruptive/Potentially Aggressive Persons
1. Dial 2-7225
2. Tell security We need assistance for ________(reason) at ______ (Location)
3. Security will determine with the staff caller whether only Safety Service personnel or entire Emergency Response Team will attend.
   • Notify ERT if required.

Bomb Threat

Telephone Threat:
1. Listen, be calm & courteous. DO NOT interrupt the caller.
2. Keep the caller on the line as long as possible. DO NOT put the caller on hold or ask caller to wait. Ask to have everything repeated. Pretend difficulty in hearing or poor phone connection.
3. Note the following as well as you can:
   • Date & time call was received
   • Questions to ask the caller:
     • When is the bomb going off?
     • Where is the bomb?
     • What kind of bomb is it?
     • What does it look like?
     • Why did you place the bomb?
     • Who are you?
     • Where are you?
   Distinguishing voice characteristics:
   Male ____ Female _____ Accent:_______ Age________ Tone:_______
   Background noises:_________________ Voices:____________
   Other________________
4. Call security as soon as you can – local 0000
5. Note action taken after you received the call

Suspicious Package
If you observe a suspicious package/object:
- DO NOT TOUCH IT!
- Contact your Supervisor immediately
- Wait for further instructions
- If you are advised to evacuate your area, take all personal belongings
Evacuation (Code Green)

Immediate Action
1. Evacuate everyone from the room or area of the emergency
2. Evacuate horizontally through a set of fire separation doors from the danger area to a safe area
3. Evacuate vertically if there are no safe horizontal routes (up staircases)

If Time allows
1. Mark doors to notify others that rooms are empty of people
2. Place masking tape on unit/department door to indicate unit/department is empty.
Disaster (Code Orange)

Code Orange is the term used to activate the response to a disaster. A disaster may be external to the hospital with incoming casualties or it may be an internal disaster affecting more than one room the building.

There are three levels of responses depending either on the number of casualties (if it is external) or on the location and severity of the incident if it is internal.

### CODE ORANGE RESPONSE LEVELS

<table>
<thead>
<tr>
<th>Code Orange Response Level</th>
<th>Number of Casualties</th>
<th>Hazard/Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ALERT</strong></td>
<td>Confirmed external disaster with unknown number of casualties.</td>
<td></td>
</tr>
<tr>
<td><strong>MINOR</strong></td>
<td>An external incident where the expected or actual influx of casualties is: &gt;25 with/or &gt;5 critically injured.</td>
<td></td>
</tr>
<tr>
<td><strong>MAJOR</strong></td>
<td>An external incident where the expected or actual influx of casualties is: &gt;100 with/or &gt;13 critically injured</td>
<td></td>
</tr>
</tbody>
</table>

- **If the disaster site is physically located in some part of the hospital the Code Orange Notification is always followed by the location of the disaster.**
- **An internal incident where the hazard extends to more than one room in a non patient-care building (excluding the Physical Plant).**
- **An internal incident where the hazard is: located in the Physical Plant area (potential for prolonged loss of heat, electricity, ventilation to site). Confined to a Patient Care Ward Confined to one floor in a Patient Care building.**
- **An internal incident where the hazard is located on more than one floor in a Patient Care Building. where the hazard extends to more than one building on the site.**
Incident/Accident report procedures and sample forms

Any incident needs to be reported to HSE and investigated by a person who is on the safety committee as well as the supervisor of an area or lab in order to determine what caused the accident and how to minimize or eliminate the hazard.

There are two forms: one for UBC faculty & staff (covered by WCB) and one for visitors & students (who aren’t covered by WCB). I need to find out what one does if employed by the hospital or by CBR.

UBC has designed the form to be filled out if there is an incident or accident involving a UBC faculty or staff member. It includes an area to help pinpoint the underlying causes and space to describe how the hazard will be minimized or eliminated.

There is a separate form for visitors/students not covered by WCB.

See your supervisor or Helen Dyck for forms if you need one.

There is included a photocopy of a faculty/staff form – along with the instructions for filling it out. Any incident needs to be investigated by a person who is on the safety committee as well as a supervisor (and not the injured party), in order to determine what caused the accident and how to minimize or eliminate the hazard.

To determine what you need to fill out follow the following flow chart:

UBC’s Faculty % staff incident/Accident Report must be completed for every incident or accident, even if there were no injuries sustained. Any event that occurred that involved injury to a person or damage to property, or had the potential to do so must be reported to Health Safety & Environment within 24 hours of occurrence.

For serious accidents which:

- Resulted in death or critical condition with a serious risk of death, or
- Involved an explosion, major structural failure or collapse of a building, scaffolding, hoist, tower temporary construction support system, or excavation, or
- Involved the release of a toxic or hazardous substance, or
- Involved a diving accident

Then notify hospital security (0000) and Health, Safety & Environment at 822-2029 immediately and seal the area (do not begin a clean-up as on site evidence must be preserved).

In cases where an injury occurred, the employee should complete the Worker’s Report of Injury Form 6A (available from supervisor or Helen Dyck) as well as the UBC Faculty/Staff Incident/ Accident Report.
Incident or accident occurred

Was anyone injured?*

No

• Supervisor complete section 1 and section 2 (employee’s name only)
• fax to HSE** within 24 hrs of occurrence
• Supervisor and Safety Committee member to complete Accident Investigation (Section 4) and mail to HSE

Yes

Did worker receive medical attention?

No

Did worker miss time from work (other than day of injury)

No

• Supervisor complete sections 1, 2 & 3, fax to HSE** within 24 hrs of occurrence.
• Supervisor and safety committee member to complete Accident Investigation, mail to HSE

Yes

*Note: if the injured person is a student or visitor to campus, complete the UBC Student & Visitor Incident/Accident Report instead
** Dept. of Health, Safety & Environment, 50-2075 Wesbrook Mall, General Services Administration Building. Phone: WCB claim assistant 822-8759 or HSE Main Office 822-2029. Fax 822-1637.
UBC Student & Visitor Incident/Accident Report

This report is to be completed by, or on behalf of, Visitors to UBC Campus and UBC Students who have been injured on UBC premises.

The personal information below should pertain to the injured/involved party.

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Telephone</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Street Address</th>
<th>City</th>
<th>Postal Code</th>
</tr>
</thead>
</table>

Status:
- □ Visitor
- □ Student
- □ Other

Severity of Injury:
- □ First Aid only
- □ Medical treatment (doctor, hospital)

Mode of Transportation to Medical Facility:

Department Visited

Describe the exact location of accident. (Include building name and room number, or if outside describe area in detail.)

Describe the events leading up to and including the incident/accident in the words of the injured party, if possible. Include details of any injuries (Use reverse if necessary):

Eye Witness: □ Yes □ No (Please provide witness’ name and telephone number, if possible.)

Incident/Accident Reported to:

<table>
<thead>
<tr>
<th>Name:</th>
<th>Title:</th>
<th>Phone #</th>
</tr>
</thead>
</table>

If this report is completed by someone other than the injured/involved party, please provide the following information:

<table>
<thead>
<tr>
<th>Your Name</th>
<th>Tel #</th>
<th>Relationship to injured party</th>
</tr>
</thead>
</table>

Distribute Report as follows:
1) **Original to Department**, with copies to:
2) Building Safety Committee, if incident occurred within or near building
3) Health, Safety & Environment (50-2075 Wesbrook Mall, Vancouver, V6T 1Z1. Fax: 822-6650)
4) Risk and Insurance Manager, (3rd flr 2075 Wesbrook Mall, Vancouver. Fax 822-1224)

Reviewed by (Safety Committee Members) | Date (m/d/y) | Comments and/or Further Action
---|---|---

If you have any questions, please call Health, Safety & Environment at 822-8759 or 822-2029.

*NOTE: The Department in which the injury occurred is responsible for ensuring that the accident is investigated by the Local Safety Committee. The Department must review and implement the resulting recommendations.
## UBC Faculty & Staff Incident / Accident Report

This form is to be completed by the worker's supervisor.

### 1. What Happened?

- **Date and Time of Incident/Event:** 02/06/15 9:30 am
- **Location of Accident:** Bushcamp Tower, Floor 5
- **Name of Employee:** John Doe
- **Employee's Name:** John Doe
- **Employee's Position:** Plant Operations, Electrician
- **Supervisor's Name:** Jane Smith
- **Supervisor's Phone:** 604-822-0000

**Description:**
The employee was feeding tools and materials for the job he was commissioned to do that day. He needed a portable generator and wheeled one over to the back of the van. With the help of another employee, he lifted the generator into the van. The employee slipped, twisted his back and felt pain in the lower area of his back.

### 2. Where Was the Accident?

- **Date and Time Report Received:** 02/08/15 11:00 am
- **Name of First Aid Given:** Yes
- **Name of First Aid Provider:** Mary Smith

### 3. Who Was Involved?

- **Worker's Job Title:** Plant Operations, Electrician
- **Worker's Date of Birth:** 01/10/10
- **Worker's Phone Number:** 604-987-1234
- **Worker's Email:** john.doe@ubc.ca
- **BC Care Card No.:** A000-000-000

### 4. Additional Information

- **Address:** 333 Sawyn Street, Burnaby, BC V5V 3Z2

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**Date:** 02/08/15
**Supervisor:** Jane Smith

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**Note:** The document contains confidential information that must be collected to initiate a WCB claim.
### UBC Faculty & Staff Accident Investigation Report

The incident/accident must be investigated by the worker’s supervisor and a worker member of the Local Safety Committee within 3 working days of the incident or accident. Complete this page and distribute as follows:

1) Fax a copy to Health, Safety & Environment 604-822-6572;
2) Send the original to the Department Head;
3) Send a copy to the local Safety Committee;
4) Post a copy at the work site.

#### Date & Time of Incident/Incident (STAND): 02/06/15 11:06a.m.

**Name of Person First Requested to:**

**Occupation:**

**Worker’s Department:**

**Worker’s Job Title:**

**Was First Aid Given?**

**Is YES, in First Aid Report Included?**

**Was Emergency Services Called?**

**Was Emergency Services Called?**

**Injury or Condition:**

**Body Part Impaired:**

**Was the Accident at Work?**

**Injured?**

**No**

**Injury or Condition:**

**Body Part Impaired:**

**Was the Accident at Work?**

**Injured?**

**Yes**

---

**Title of Accident/Incident:**

**Date of Incident/Incident (STAND):**

**Place of Incident/Incident (STAND):**

**Location of Accident (Bldg., Room):**

**Description of Accident:**

The employee was lifting loads and materials for the job he was to do that day. He needed a portable generator and wheeled one over in the back of the van with the help of another employee. He lifted the generator into the van. The employee slipped, twisted his back and felt pain in the lower area of his back.

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** causa/cases:**

<table>
<thead>
<tr>
<th>Task</th>
<th>Environment/Employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifting</td>
<td>Limited space/extended posture</td>
</tr>
<tr>
<td>Twisting the back</td>
<td>Hunching</td>
</tr>
<tr>
<td>Lifting materials</td>
<td>Variances in floor surface</td>
</tr>
<tr>
<td>Heavy load - Lift</td>
<td>Cuts/Blusts</td>
</tr>
<tr>
<td>Heavy load - Push</td>
<td>Muscles/weakness</td>
</tr>
<tr>
<td>Heavy load - Pull</td>
<td>Vision/obstructed</td>
</tr>
<tr>
<td>Unexpected tool to handle</td>
<td></td>
</tr>
<tr>
<td>Harsh tool</td>
<td>Personal Protective Equipment restrictions</td>
</tr>
<tr>
<td>Sharp edges on load</td>
<td>“Environment” factors</td>
</tr>
<tr>
<td>Repeated motion</td>
<td>Other (Specify)</td>
</tr>
<tr>
<td>Slipping</td>
<td></td>
</tr>
<tr>
<td>Extended reach</td>
<td></td>
</tr>
<tr>
<td>Interference</td>
<td></td>
</tr>
<tr>
<td>Reaching</td>
<td></td>
</tr>
<tr>
<td>Precision not followed</td>
<td></td>
</tr>
<tr>
<td>No “Yuck” section</td>
<td></td>
</tr>
<tr>
<td>Other (Specify)</td>
<td></td>
</tr>
</tbody>
</table>

---

**Injurious Actions:**

The employee was lifting from a wet/slippery surface because of a direct blocking. The load was heavy and awkward and lifted from floor level. Employee was also rushing because he was covering for someone on vacation.

---

### Accident Investigation

**Select one or more causes from each category:**

1. Lifting
2. Twisting the back
3. Lifting materials
4. Heavy load - Lift
5. Heavy load - Push
6. Heavy load - Pull
7. Unexpected tool to handle
8. Harsh tool
9. Sharp edges on load
10. Repeated motion
11. Slipping
12. Extended reach
13. Interference
14. Reaching
15. Precision not followed
16. No “Yuck” section
17. Other (Specify)

---

**Supervisor:**

**Date of Accident:**

**Date Accident Occurred:**

---

**Summary:***

Mike Manager

02/09/08

Jane Smith

Anne M. Safer.

02/06/15
Section 4- Accident Investigation

Objective: To determine the cause of an accident and to prevent future occurrence.

To be conducted by:
- Direct supervisor of the employee.
- Worker safety representative from the Health and Safety Committee.
- May need additional people if specific information is required about specialized types of work or hazards.

To be performed:
- At the actual incident site/location.
- As soon as possible after the incident.
- As accurately as possible; include weights, heights, distances of objects (include pictures if applicable).

Steps:
- Secure the scene.
- Care for the injured.
- Gather and record data.
- Interview all persons involved (witnesses, co-workers, supervisors).
- Check training records, safety analyses, risk assessments previously done for the site.
- Review history- check if there are similar incidents at the site and/or involving other employees.

INSTRUCTIONS

Complete Section 4 [Page 2]:

Select all applicable factors for each of the five categories listed. There should be a minimum of five boxes checked.

Using the factors identified, determine the basic causes of the incident.

Develop recommendations for each identified cause and assign a completion date.

Attach additional pages if required.

The individual department is responsible for completion and follow-up of recommendations.

Additional Help?
Contact HSE office 604-822-2029 to arrange for assistance from an HSE officer.
What you can do to ensure we all have a safe place to work in:
What follows is a very brief summary of some common safety concerns. It is not intended as an exhaustive list, but is a means to get you thinking about safety in your area.

As you are aware, our work areas contain a number of different types of hazards. These include equipment (photocopiers, centrifuges, ovens, etc.); hazardous materials such as chemicals, biological organisms and radioactive materials; and processes which operate under pressure or high temperature which are likely to be hazardous if components fail.

Make sure you know the basic safety rules for your work area. Reduce your exposure to hazards by not exposing yourself unnecessarily.

Remember that FOOD & DRINK should not be consumed in lab areas; unless there is a separate designated room for that type of activity; and don't walk through work areas with open food.

**Ergonomic issues**
A large percentage of most workplace injuries are the result of poorly set up work space and lack of attention to the limits of body movement. Irene Ho and Helen Dyck are our department office ergonomic representatives and are available to conduct an ergonomic inspection of any workstations. There is also information on ergonomics at the HSE website, along with sample exercises and ways to minimize repetitive strain injuries.

**Hazardous equipment**
Make sure that you are aware of the hazards associated with the equipment that you are using and that you are properly trained in the use of the equipment, before you start using it. Make sure that any safety guards or components of the equipment have not been overridden. Be aware of any areas of the equipment which may become hot during operation and to which you may become exposed by opening a normally closed part of the equipment (the photocopier comes to mind).
Check electrical cords to make sure that they are in good condition on a regular basis and get them fixed when they are cracked or frayed.

**Hazardous Materials:**
“All UBC personnel who work with hazardous material must be aware of requirements for their use, handling, storage and disposal.”
If you are using hazardous materials please make sure that you have taken an appropriate UBC HSE safety course. (See section which outlines the HSE programs and check out their website).

**WHMIS recognition & labeling**
We have included a sheet with WHMIS labels so that you will know what the symbols mean and what precautions need to be taken with that substance. Please make sure that you label any materials with the appropriate labels if the container does not have them. This is especially true of anything which is synthesized or mixed in your lab.

Know the hazards of all the materials you are working with and keep current MSDS sheets in a convenient location so that you can refer to them as needed. There is a large collection of
MSDS sheets in the photocopy room and most sheets are available on the internet. See HSE website for links to pages that make MSDS information available.

**Chemical Inventory:**
Inventories of hazardous material are required to be updated annually. The required categories of information include:

- Department
- Location (Building & room)
- Principal Investigator
- Chemical name (supplier label)
- Quantity (kg or L)
- WHMIS class (primary hazard)
- Location of Material Safety Data Sheets (MSDS)

**Proper storage procedures**
You need to be aware of the proper storage conditions for hazardous substances. Make sure that classes of chemicals are not mixed if they are liable to react with each other. It is often sufficient to keep them in different trays which would contain the chemicals if there was a breakage or spill.

**Proper usage conditions**
You are responsible for ensuring that the hazardous materials that you use are handled under recommended conditions (fume hood, biological safety cabinet etc) and that the appropriate personal protective equipment needed are in use.

**Spill clean-up:** Know what to do with the materials if there is a spill, make sure you know what quantities are reportable and what agencies need to be reported to (see UBC spill procedures for more detailed information.) Make sure that others in your lab/ work area know about the hazards and the need to report any spills.

**Lab coats:** Please keep them in the labs and not in the cafeteria. Wear them whenever you are working in the labs. They help reduce (but not eliminate) accidental spills from contacting your skin.

**Gloves:** Make sure you keep your gloves for when you are working with materials and not when you are answering the phone or opening doors (or else people without gloves will get what you didn’t want on your hands on theirs).

**Experiments which run while you are not around**
Please make sure that there are signs posted by the experiments about what materials are involved and who should be contacted in case there is an emergency. Make sure that other people in your work area know what is going on and what to do if the equipment should fail.

**Training Record Form**
HSE has produced a form that allows for the tracking of the training you have taken. The Department needs to have a record of this in order to ensure that people are getting the appropriate training that they need in order to operate safely in this department. We have attached a sample sheet. Please make sure that you speak with your supervisor or the departmental safety officer about filling one out.
Waste Disposal Procedures:

There are at least two waste streams that we have access to. Be aware that there are differences between how UBC and the Hospital handle a number of waste components.

Routine Hospital stream:

**Regular garbage:** ends up in the landfill - Make sure that no hazardous material is placed in the regular garbage stream unless it no longer poses a hazard. Empty chemical containers (not glass) can be put in the garbage if they are cleaned out and the labels have been defaced or removed.

**Cardboard boxes:** Please make sure that you deface any hazard labels on boxes before placing them in the halls for pick-up. You may also take them to the garbage room and place them in the grey bins to be compacted.

**Glass waste:** Empty glass bottles should be washed and labels defaced. Broken glass needs to be well boxed and marked as such (make sure that the boxes are not too heavy) before being placed in the halls for pick-up.

Special UBC Hazardous Waste Pick-up:

**Chemical waste:** check the UBC Waste Disposal guidelines – the following are some tips.

- **Flammable solvent containers** need appropriate tags (for recycling or disposal) along with a barcode that identifies the source of the container. They can be obtained from Bang Dang @ 2-1285. Place in the Chemical Waste Disposal Cage in the Garbage room for pick-up by UBC.
- **Solid Chemical waste:** Fill out a chemical inventory form (make sure you identify the chemical components of the waste if it is not in the name that you list) – Do not use abbreviations or acronyms as they do not give enough information. Fax to Ron Aamodt (827-5087). Ron will fax it back with the codes under which you package the chemicals. If there are any class F or questions, comments, please call Ron or the rest of your chemicals will not be picked up. If you do end up with class F chemicals – speak with Helen Dyck. Box the chemicals according to the code given by Ron. Do not mix different codes in one box. Label boxes clearly with a contact name, phone number and pick-up code. On one of the boxes tape lightly an envelope with a copy of the faxed list with Ron’s initials on the bottom of the page(s). If there is no initials it will not be picked up. (The list will be removed by the truck driver so don’t tape too much).

**Biohazard Waste:** There are two ways of dealing with Biohazards waste – the hospital stream and the UBC stream. Check with the UBC waste disposal procedure book if you are sending the waste for them to pick-up (The chemical cage in the garbage room). You must remember to tag the bags with the red biohazard tag with your barcode and the appropriate class of biohazard ticked off.
Information on Health, Safety & Environment

Environmental Services Facility
For the Recycling, Treatment, Classification, Transportation, Storage and Disposal of Hazardous Waste

Contacts:
Ron Aamodt  822-6306 Fax Number:
Bang Dang   822-1285
Andy Trinh   822-1281
Stephen Lee  822-9280
http://www.hse.ubc.ca/v.2/innerContacts.php

The Environmental Services Facility (ESF), located on the UBC Point Grey campus, is involved in the recycling, treatment, classification, transportation, and disposal of hazardous waste. ESF deals with over 350 waste generators and handles approximately 64 tonnes of solid waste and 30,000 L of liquid waste per year. This waste includes hazardous chemicals, PCB containing materials, solvents, oil, batteries, biohazardous waste, and photographic waste. Where possible, hazardous waste is diverted to ESF’s Chemical Conservation Program, which includes Solvent Recovery, Chemical Exchange, and Silver Recovery from Photochemical Waste. Otherwise, wastes are either stored, incinerated, or neutralized on site. ESF also provides Hazardous Waste Management and Pollution Prevention training, and is involved with research and development for new hazardous waste disposal and treatment procedures.

Chemical Conservation Program
Chemical Exchange Program. The Chemical Exchange Program was created to reclaim perfectly useable chemicals from being disposed of. Labs having surplus or unused chemicals are encouraged to submit an itemized list to ESF using the facility’s Chemical Waste Inventory form (call 822-6306) or visit http://www.hse.ubc.ca/v.2/innerPubsAndProcs.php?ct=pc. A list of available chemicals is published monthly and sent to all waste generators who use ESF. The cost for purchase and delivery for any chemicals on the list is FREE!! For more information, or to be added to our mail list of recipients for a monthly copy of our Chemical Exchange Inventory, contact Ron Aamodt at 822-6306. New fax number : 604 827 5087

Solvent Recovery Program
UBC typically uses large volumes of organic solvents that ultimately require special waste disposal. ESF provides a solvent recovery program ESF has an extensive Pollution Prevention Program, which was created to increase awareness of environmental issues linked to the use of hazardous substances. A hazardous waste manual of updated disposal procedures is available by contacting the facility. As well, ESF provides seminars, training, and workshops that deal with various topics, such as pollution prevention and hazardous waste management. ESF is also involved in research and development of new and improved methods of dealing with hazardous waste, such as heavy metals, cyanide treatment, and finding new solvents to recover. A quarterly newsletter called Waste Watchers is published that is designed to create awareness regarding environmental issues.
For an extensive library of Material Safety Data Sheets (MSDS), refer to the links on the Department of Health, Safety and Environment’s homepage at www.safety.ubc.ca. At this site, you can find all the pertinent information on common chemicals used on campus. The ESF has a regular pickup schedule for the removal of hazardous waste. Call Bang Dang at 822-1285 for any questions.

Other ESF Pollution Prevention Strategies that re-distills certain frequently used solvents such that their purity is suitable for most laboratory applications. This program has been expanding since 1994, having increased its volume of solvents recycled by 39% in 1997 alone. Today, the program successfully distills and redistributes Acetone, Methanol, Hexane, Xylene, and Varsol back to program participants for a fraction of the price of new solvents. For more information on how to participate in this program, call 822-1285.

**Silver Recovery from Photochemical Waste**

Recovery Legislation now states that photographic wastes that contain more than 5 ppm of silver are considered special wastes. In the future, this legislation may change to an even stricter 1 ppm, which may impact photographic waste streams significantly. ESF has developed a program that not only collects and treats this caustic and toxic waste for safe sewer disposal, but also recovers the silver for reuse by a silver refinery.

For more information you can visit the HSE website at [http://www.hse.ubc.ca](http://www.hse.ubc.ca)

This website includes spill reporting procedures, disposal procedures, the Waste Watchers Newsletter.

Suite 50-2075 Wesbrook Mall
Vancouver, BC
Canada V6T 1Z1
Fax: 822-6650
http://www.safety.ubc.ca
Miscellaneous Departmental Policies & Procedures which impact safety:

Snow Policy
The following has been drawn up in order that all Pathology staff have a clear understanding of how this department will administer the University policy on snow should the need occur.

UBC Policy (Summary)

The University will remain open during snow storms but may cancel or reschedule classes on a university-wide basis and/or curtail non-essential services in response to the conditions.

**In the event the University cancels classes due to weather:**
Certain extreme weather conditions may dictate the cancellation of classes (both credit and non-credit) on a university-wide basis and the curtailment of non-essential services. In this situation, the decision will be made by the President or his/her delegate. The decision will be communicated within the university community by telephone/fascimile by the Vice Presidents, Deans, Heads and Directors. The decision will be communicated to local radio and television stations by Community Relations.

In the event of deteriorating conditions overnight, every effort will be made to communicate the decision to the radio and television stations by 6:00 a.m.

In the event of deteriorating conditions during a person’s normal workday, the administrative head of unit has the authority to permit members of faculty and staff who are not designated as essential for snow services to leave early without loss of pay, upon receiving the communication originating in the President’s Office.

Department of Pathology & Lab. Med. Policy

Designated essential service: Animal Unit staff

**In the event that you can’t make it in because of poor weather:**

Notify your supervisor or overseer and let them know you can’t make it in or that you are going to be late getting in.

If you have an urgent need for someone to check on your experiment, condition in your lab etc. and you can’t make it in please feel free to contact Charles Ramey 822-7101 or Helen Dyck 822-7114. We will be checking our voicemail on a regular basis and will try to make the appropriate arrangements.
Power Outages

As we are situated in a hospital building there is auxiliary power available to provide lights and some outlet power (red-plugs).

In the event of loss of power:

- Determine if back-up power is available (Red plugs working, back-up lights working).
- Turn off non-essential equipment.
- Any essential equipment may be plugged into the red plugs (see below for examples).

**Please be aware that any use of auxiliary power** (red plugs etc.) **drains the overall amount of power available for the whole hospital.**

Priority is given to critical patient care equipment and power will be diverted if needed to only those areas.
Do not drain power unnecessarily by using the red plugs for microwaves, teakettles etc. or minor non essential equipment *(Do not try to carry on life as usual)*

**Essential Equipment:**
Some examples of what would be considered essential equipment:
- Hoods
- Freezers (-80°C)
- Tissue culture incubators with important cultures.

For the most part these are already running on red-plugs.

**Be aware:**

If there is long term loss of power (more than 20 minutes) there may be a code orange announcement.

If there is a total power outage (no lights at all & no red-plugs), you should leave the area.
Appendix A: UBC SPILL REPORTING PROTOCOL

SCOPE
Spill reporting procedures are applicable to all UBC activities and operations. These procedures are specific to the Point Grey campus and may require modification for use at other University locations.

PURPOSE
To ensure that all spills of hazardous materials are reported to the appropriate authority as required by law.

BACKGROUND
Many different statutes impose specific legal obligations to report spills to provincial and federal agencies. The primary responsibility of any person who has possession, charge, or control of a hazardous material is to do everything in his or her power to prevent a spill of that material. This includes establishing programs to prevent the escape of the material, such as identifying areas where there are potential risks of spills, adopting procedures and technologies to minimize or eliminate such risks, and ensuring anyone handling the materials is trained in the relevant procedures and technologies. When a spill does occur, the responsible person must act quickly to stop, contain, and minimize the effects of the spill. Courts impose stricter penalties for convictions arising from a spill if there was a delay in responding to or reporting of the spill. A spill is defined as an external release to air, water or land. A dangerous good released from its packaging in transit or on arrival is also considered a reportable spill under Transportation of Dangerous Goods Act 1992. In the event of a spill, more than one piece of legislation may apply and more than one agency may require a spill report to be completed. These reports are time sensitive.

PROCEDURE
1. When the potential for a spill exists programs are to be established to prevent the escape of hazardous materials. This should include identifying areas where there are potential risks of spills, adopting procedures and technologies to minimize or eliminate such risks, and ensuring all personnel involved are trained in the procedures and technologies.
2. In the event of a spill or release of material, persons in the immediate area should act to ensure their personal safety. The responsible person, must act quickly to stop, contain, minimize the effects of and clean up the affected area, where possible and safe - this may include initiating an Emergency Response.
3. Identify the material and the quantity spilled.
4. The responsible person must determine, using Table 1 below, if the spill is reportable and which agencies require notification.
5. The responsible person must notify all applicable agencies immediately and complete the UBC Spill Reporting Form (Section 2).
6. The responsible person is to keep the original Spill Reporting Form and fax a copy to the Department of Health, Safety & Environment (fax# 604-822-6650) as soon as reasonably possible. The Department of Health, Safety & Environment must also be notified by phone, (604) 822-2029, of the spill as soon as possible. A second copy of the form must be forwarded to the applicable Administrative Head of Unit.
SPILL

Call

Stop, contain and minimize effects of the spill

Identify the material and the amount spilled

Determine if the spill is reportable – refer to Table 1

Yes

1. Notify appropriate agencies immediately.
2. Call Health, Safety & Environment.
3. Complete and fax UBC Spill Reporting Form.
TABLE 1 – Determination of Materials and Agencies Requiring Notification All Classes refer to the Transportation of Dangerous Goods classification, see Section 3

Use the following table to determine if a spill is reportable and which agency(ies) should be notified. 1) Find the substance under “Substance Spilled”, 2) Compare the actual amount spilled to the “Specified Amount”, if the actual is equal to or greater than the specified amount report the spill to the “Contact Agencies” listed in the final column.

<table>
<thead>
<tr>
<th>CRITERIA/SUBSTANCE SPILLED</th>
<th>SPECIFIED AMOUNT</th>
<th>Required Contact Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste containing a pest control product</td>
<td>Any</td>
<td>Pesticide Management Program &amp; PEP</td>
</tr>
<tr>
<td>Waste oil</td>
<td>100 L</td>
<td>PEP</td>
</tr>
<tr>
<td>Explosives of Class 1</td>
<td>Any</td>
<td>PEP &amp; Transport Canada</td>
</tr>
<tr>
<td>Flammable gases of Division 1 of Class 2</td>
<td>10 kg where spill results from equipment failure, error, deliberate action, or inaction</td>
<td>PEP</td>
</tr>
<tr>
<td>Non-flammable gases of Division 2 of Class 2</td>
<td>10 kg where spill results from equipment failure, error, deliberate action or inaction</td>
<td>PEP</td>
</tr>
<tr>
<td>Poisonous gases of division 3 of Class 2</td>
<td>Any</td>
<td>PEP &amp; Transport Canada</td>
</tr>
<tr>
<td>Corrosive gases of Division 4 of Class 2</td>
<td>Any</td>
<td>PEP &amp; Transport Canada</td>
</tr>
<tr>
<td>Flammable liquids of Class 1</td>
<td>100 L</td>
<td>PEP</td>
</tr>
<tr>
<td>Flammable solids of Class 1</td>
<td>25 kg</td>
<td>PEP &amp; Transport Canada</td>
</tr>
<tr>
<td>Products or substances that are oxidizing substances of Division 1 of Class 5</td>
<td>50 kg or 50 L.</td>
<td>PEP &amp; Transport Canada</td>
</tr>
<tr>
<td>Products or substances that are organo-sulfur compounds that contain the bivalent &quot;S-S-S&quot; structure of Division 2 of Class 5</td>
<td>1 kg or 1 L.</td>
<td>PEP &amp; Transport Canada</td>
</tr>
<tr>
<td>Products or substances that are poisons of Division 1 of Class 6</td>
<td>5 kg or 5 L.</td>
<td>PEP &amp; Transport Canada</td>
</tr>
<tr>
<td>Organisms that are infectious or that are reasonably believed to be infectious, and the toxins of these organisms (risk group II and above)</td>
<td>Any</td>
<td>PEP &amp; Transport Canada</td>
</tr>
<tr>
<td>Radioactive materials of Class 7</td>
<td>All discharges of a radiation level exceeding 10Msv/h at the package surface and 200uSv/h at 1 m from the package surface</td>
<td>PEP &amp; Transport Canada</td>
</tr>
<tr>
<td>Corrosive materials of Class 8</td>
<td>5 kg or 5 L.</td>
<td>PEP &amp; Transport Canada</td>
</tr>
<tr>
<td>Waste Asbestos</td>
<td>50 kg</td>
<td>PEP</td>
</tr>
<tr>
<td>Miscellaneous products or substances of Division 1 of Class 9</td>
<td>50 kg or 50 L.</td>
<td>PEP &amp; Transport Canada</td>
</tr>
<tr>
<td>Miscellaneous products or substances of Division 2 of Class 9</td>
<td>1 kg or 1 L.</td>
<td>PEP &amp; Transport Canada</td>
</tr>
<tr>
<td>Miscellaneous products or substances of Division 3 of Class 9</td>
<td>5 kg or 5 L.</td>
<td>PEP &amp; Transport Canada</td>
</tr>
<tr>
<td>A substance not covered by these items that can cause pollution</td>
<td>200 kg or 2001.</td>
<td>PEP</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>10 kg, if there is a breakage in a pipeline or fitting operated at &gt;100psi that results in a sudden release</td>
<td>PEP</td>
</tr>
<tr>
<td>One of the 45 materials on the List of Toxic substances (refer to Section 4)</td>
<td>Any</td>
<td>Environment Canada</td>
</tr>
<tr>
<td>A major release of a toxic or hazardous material</td>
<td>1. The incident resulted in an injury that required immediate medical attention beyond the level of service provided by a first aid attendant or injuries to several workers which require first aid.</td>
<td>Workers Compensation Board</td>
</tr>
<tr>
<td></td>
<td>2. The incident resulted in a situation of continuing danger to workers, as when the release of a chemical cannot be readily or quickly cleaned up.</td>
<td></td>
</tr>
<tr>
<td>A substance that is or may be a health hazard</td>
<td>Any</td>
<td>Medical Health Officer</td>
</tr>
<tr>
<td>Deleterious substance released into water frequented by fish</td>
<td>Any</td>
<td>PEP</td>
</tr>
</tbody>
</table>

CONTACT NUMBERS

<table>
<thead>
<tr>
<th>Emergency Response</th>
<th>Health, Safety &amp; Environment (604) 822-2029; (fax# 822-6650)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEP/Provincial Emergency Program (250) 887-5956 or (604) 887-3456</td>
<td>Transport Canada Contact the local Police</td>
</tr>
<tr>
<td>Pesticide Management Program (604) 582-5200</td>
<td>Medical Health Officer (604) 736-2033</td>
</tr>
<tr>
<td>Environment Canada (604) 660-6100</td>
<td>Workers Compensation Board 1-800-661-2112 after hours (604) 273-7711</td>
</tr>
</tbody>
</table>

PEP = Provincial Emergency Program
### Section 2 UBC SPILL REPORTING FORM

Fax to Health, Safety & Environment, (604) 822-6650  
Or call (604) 822-2029  
Copy to be forwarded to Administrative Head of

<table>
<thead>
<tr>
<th>Name</th>
<th>Description of spill, including cause and actions taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dept.</td>
<td></td>
</tr>
<tr>
<td>Phone number</td>
<td></td>
</tr>
<tr>
<td>Address</td>
<td></td>
</tr>
<tr>
<td>Material spilled</td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td></td>
</tr>
</tbody>
</table>

**REPORTABLE SPILLS ONLY**

<table>
<thead>
<tr>
<th>EMERGENCY RESPONSE INITIATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES ☐</td>
</tr>
<tr>
<td>NO ☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agencies attending scene (e.g. Fire Dept. etc)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agencies notified of spill (e.g. PEP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
</tr>
<tr>
<td>Time</td>
</tr>
<tr>
<td>Time</td>
</tr>
</tbody>
</table>
UBC Policies: see also http://www.universitycounsel.ubc.ca/policies/health.html

Safety policy #7

Purpose
To articulate the University's objective of providing a safe, healthy and secure environment for all members of faculty and staff, students and visitors, and to delineate responsibility for achieving it.

Policy

The University aims to provide a safe, healthy and secure environment in which to carry on the University's affairs. All possible preventive measures are taken to eliminate accidental injuries, occupational diseases and risks to personal security. Compliance with the Workers' Compensation Act, WHMIS and related legislation is the minimum standard acceptable. All students and members of faculty and staff are encouraged to strive to exceed these minimum legal standards and to eliminate unnecessary risks.

Procedure Summary

Approved: March 1994
Reviewed: November 1995

Pursuant to Policy #1, "Procedures may be amended by the President, provided the new procedures conform to the approved policy. Such amendments are reported at the next meeting of the Board of Governors and are incorporated in the next publication of the UBC Policy and Procedure Handbook."

The University

It is the responsibility of the University acting through administrative heads of unit to:

- provide a safe, healthy and secure working environment;
- ensure regular inspections are made and take action as required to improve unsafe conditions;
- ensure that health, safety, and personal security considerations form an integral part of the design, construction, purchase and maintenance of all buildings, equipment and work processes;
- provide first aid facilities where appropriate;
- support supervisors and safety committees in the implementation of an effective health, safety and security program;
- ensure compliance with WCB and other applicable legislation;
- establish department or building safety committees;
- communicate with the university community or affected groups about events or situations when potentially harmful conditions arise or are discovered;
- ensure adequate resources are available to implement appropriate procedures.

The Supervisor

It is the responsibility of supervisory staff to:

- formulate specific safety rules and safe work procedures for their area of supervision;
- ensure that all employees under their supervision are aware of safety practices and follow safety procedures;
• provide training in the safe operation of equipment;
• inspect regularly their areas for hazardous conditions;
• correct promptly unsafe work practices or hazardous conditions;
• be responsive to concerns expressed about personal security and investigate any accidents, incidents or personal security concerns which have occurred in their area of responsibility;
• report any accidents or incidents involving personal security to the appropriate University authority;
• participate, if requested, on department or building safety committees.

**Individual Students and Members of Staff and Faculty**

It is the responsibility of individual students and members of faculty and staff to:

• observe safety rules and procedures established by supervisory staff, administrative heads of unit and the University;
• be safety-conscious in all activities, be they work, study or recreation;
• report as soon as possible any accident, injury, unsafe condition, insecure condition or threats to personal security to a supervisor or administrative head of unit;
• use properly and care for adequately personal protective equipment provided by the University;
• participate, if elected or appointed, on departmental or building safety committees.

**Detailed Procedures**

The University Health and Safety Committee works to achieve these objectives by providing education and reviewing policies and procedures. Department/Area/Building Safety Committees carry out the safety programs within their areas and make recommendations to ensure that the safety objectives of the University can be achieved. (Terms of Reference for these committees available through the Department of Health, Safety and Environment.)

The Department of Health, Safety and Environment and the Department of Parking and Security Services assist departments to implement and maintain effective health, safety and personal security programs, liaise with the regulatory authorities on behalf of the University and support the activities of the University’s Safety Committees.

For more information, please consult with the Department of Health, Safety and Environment and/or the Department of Parking and Security Services.

**Definitions**

An *administrative head of unit* is a Director of a service unit, a Head of an academic department, a Director of a centre, institute or school, a Principal of a college, a Dean, an Associate Vice President, the Registrar, the University Librarian, a Vice President or the President.

A *supervisor* is a person, not necessarily an administrative head of unit, who has been delegated supervisory responsibility for others working or studying at UBC.
Summary of safety policy #6

Purpose

- to provide a formal statement of commitment in response to global and local concerns regarding environmental protection;
- to provide a framework for establishing procedures that will ensure consistent response to environmental issues, and demonstrate responsibility and due diligence on the part of the University;
- to develop auditing and monitoring procedures which are effective for a university setting;
- to ensure compliance with all applicable environmental regulations at all sites of University activity;
- to provide for the development of programs to prevent pollution;
- to provide communication and education about environmental issues;
- to provide a platform for sustainable development efforts at UBC.

Policy

UBC will act responsibly and demonstrate accountable management of the property and affairs of UBC in protecting the environment. All individuals in the University community share the responsibility for protecting the environment. Administrative heads of unit are responsible for ensuring compliance with legislation and UBC procedures both on and off campus.

Procedure Summary

Approved: January 1994
Reviewed: May 2000

Pursuant to Policy #1, "Procedures may be amended by the President, provided the new procedures conform to the approved policy. Such amendments are reported at the next meeting of the Board of Governors and are incorporated in the next publication of the UBC Policy and Procedure Handbook."

The University will continue to develop and maintain an environmental management system consistent with the purpose of this policy and with the goal of continual improvement. Procedures and reporting structures for matters of compliance with environmental legislation are necessary to demonstrate due diligence of UBC, its Board of Governors, senior officers, students, and members of faculty and staff, by addressing responsibly activities which have potential for exposure to lawsuits and prosecution.

"Where a corporation commits an offense under this Act, any officer, director or agent of the corporation who directed, authorized, assented to or acquiesced in or participated in the commission of the offense is a party to and guilty of the offense, and is liable to punishment provided for the offense, whether or not the corporation has been prosecuted or convicted."... Section 122 of the Canadian Environmental Protection Act

Procedures, guidelines and programs addressing specific environmental issues will be developed and updated as required, as part of the University environmental management system, to accomplish the objective of compliance with environmental legislation, with the full participation of the University community. These will include evaluation guidelines and
monitoring procedures, effective measures of progress, reporting mechanisms, educational programs, and contingency plans for accidents that affect the environment.

The Manager, Environmental Programs, reporting through the Director, Health, Safety and Environment and the Vice President Administration and Finance, will be responsible for focusing efforts on the most serious problems, promoting development of the environmental management system and coordinating activities through administrative heads of unit. These efforts include environmental audits, central monitoring, recording and reporting progress (and instances of non-compliance) on environmental protection issues, providing training to the campus community and serving as the central information source about current and anticipated legislation applicable to UBC as well as providing linkages for sustainable development efforts.

**Detailed Procedures**

The Manager Environmental Programs, in conjunction with the Environmental Programs Advisory Committee, will develop and maintain a process for identifying the University's significant environmental impacts and for developing objectives and targets to manage and reduce these impacts where feasible.

Environmental audits will be performed of all areas and activities under the control of the University. Audits will include evaluation of waste, emissions, hazardous materials, emergency response procedures and the adequacy of training of students, faculty and staff. Such audits will measure the extent of compliance with federal, provincial and local legislation and identify potential environmental risks.

An action plan will be developed by the administrative head of unit for bringing all identified deficiencies into compliance with legislation, in consultation with the Manager, Environmental Programs, and will be forwarded to the Vice President responsible for the unit for approval of actions, timing, and funding.

Monitoring systems and procedures for handling and reporting accidents/incidents will be established for all activities and areas of concern. Administrative heads of unit are responsible for ensuring that the monitoring is carried out in accordance with established systems and for reporting on the monitoring to both the unit’s vice president and the Manager, Environmental Programs. Deficiencies detected through monitoring or other means will be corrected as soon as possible.

Environmental Programs will develop programs designed to prevent pollution and will encourage and support such activities within the University community.

When the impact or experimental design of activities to be conducted at off campus locations has unknown or potentially harmful environmental consequences, the member of faculty or staff responsible will apply in advance for a certificate of environmental protection from the Environmental Programs Advisory Committee to review and authorize such activities. Research protocols, consistent with practices approved by the Advisory Committee for individual experiments, may be authorized by the Advisory Committee for experiments which are to be
repeated. These steps are necessary because of the university's potential liability for problems arising from off-campus activities.

Administrative heads of unit are responsible for ensuring communication about the goal of compliance with environmental legislation and appropriate training of all persons working or studying within their units in relevant environmental issues and procedures for recognizing, dealing with and reporting accidents that affect the environment.

Supervisors and principal investigators are responsible for ensuring University procedures are followed and for instructing personnel under their supervision regarding applicable policies, programs and procedures. Individuals working in environmentally sensitive areas or with potentially hazardous materials must be given appropriate supervision, instruction and training prior to undertaking work.

Reports of all audits, plans for correcting deficiencies, reports on satisfying monitoring requirements, accident-handling procedures and any minor accidents/incidents will be brought, through the senior officers of the University, to the Board of Governors at its regular meetings. Any accidents/incidents of significant environmental impact will be brought to the attention of the Chair of the Board of Governors by the President or his/her designate immediately. When potentially harmful conditions arise or are discovered, the administrative head of unit is responsible for notifying individuals who might be affected and keeping them aware of efforts to correct the situation.

The Manager, Environmental Programs ensures that consultations with the campus and surrounding communities about the state of compliance and progress toward it take place. The Manager, Environmental Programs will publish annually a report which includes information on the audits conducted, the compliance issues dealt with and outstanding, training and communication activities, and responses to accidents affecting the environment.

See also Policy #5: Sustainable Development.

**Definitions**

Administrative head of unit means a Director of a service unit, a Head of an academic department, a Director of a centre, institute or school, a Principal of a college, the Coordinator of Health Sciences, a Dean, an Associate Vice President, the Registrar, the University Librarian, a Vice President or the President.

Due diligence means the care a reasonable person would take, having regard to all the circumstances and information about which that person knew or ought to have known.

Environment means the biophysical conditions under which people or things live or are developed.

Environmental audit means a systematic, objective method of identifying and verifying that laws, regulations, procedures and University guidelines for environmental, health, occupational hygiene, safety and emergency preparedness standards are being followed. The examination involves analysis, testing and confirmation of procedures and practices.
Supervisor means a person, not necessarily an administrative head of unit, who has been delegated supervisory responsibility for others working or studying at UBC.

University community means all persons associated with The University of British Columbia, including students, members of faculty and staff, visitors, contractors, suppliers, tenants, and users of facilities.