

# **HEALTH AND SAFETY PROGRAM MANUAL**



**Norman B. Keevil  
Institute of Mining Engineering**

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## EMERGENCY CONTACT INFO

**FIRE**

**POLICE**

**AMBULANCE**

**9-1-1**

**Mobile First Aid (UBC campus) ..... (604) 822 - 4444**

### Local First Aid Attendant:

Name	Phone
Sally Finora, Forward Rm 401	604-822-4292 or pager 604-205-0134

**Hazardous Materials Response ..... 911**

**Poison Control ..... (604) 682-5050**

**Patrol (UBC campus) ..... (604) 822-2222**

### Other:

Bio-Safety Officer ..... (604) 822-9527  
Campus Security (non-emergency) ..... (604) 822-8609/2-3509  
Chemical Safety Advisor ..... (604) 822-7596  
Emergency & Continuity Planner ..... (604) 822-1237  
Environmental Services Facility ..... (604) 822-1285  
Risk Management Services ..... (604) 822-2029  
Occupational Hygiene ..... (604) 822-6098  
Plant Operations (UBC Site Trouble Calls) ..... (604) 822-2173  
Radiation Safety Advisor ..... (604) 822-7052  
R.C.M.P. (UBC campus) . ..... (604) 224-1322  
Student Health Services (UBC campus) ..... (604) 822-7011  
Vancouver Fire Hall #10 (non-emergency) ..... (604) 665-6068  
Vancouver Hospital (UBC) Urgent Care Dept ..... (604) 822-7222

## MESSAGE FROM THE HEAD OF UNIT

The Norman B. Keevil Institute of Mining Engineering strives to maintain a safe, healthy and secure working environment for all employees. An effective Health and Safety Program will enable us to achieve an optimal working environment while strengthening our commitment to the University community to provide a safe work setting. All faculty and staff, including myself, are responsible for ensuring that health and safety is an integral part of our daily activities.

Sincerely,



(Dr. Bern Klein, Department Head)

### MINING Safety Policy

The safety of all faculty, staff, students, and visitors to MINING is a major concern of the department. It is an objective of MINING to provide a safe environment in which to carry on the department's affairs. All possible preventative measures must be taken to eliminate accidental injuries.

Every attempt will be made to instill an awareness of safety in all members of the department.

### University Safety Policy

*"The University aims to provide a safe, healthy and secure environment in which to carry on the University's affairs. All possible preventative measures are taken to eliminate accidental injuries, occupational diseases and risks to personal security.*

*"Compliance with the worker's 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." Policy #7*

### Environmental Protection Compliance 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" Policy #6*

## **SAFETY PROGRAM ADMINISTRATOR (SPA)**

Unit Heads have the primary responsibility for the safe and compliant operation of their area. This management function may be delegated, by the Head, to a Unit member or M&P staff member who will act as the area's Safety Program Administrator (SPA).

### **UNIT REQUIREMENTS**

**1. All Units are to have a Safety Program Administrator.**

**2. The Roles and Responsibilities of the SPA are to:**

1. Act with the authority of the Head in the day-to-day Health and Safety management of the Unit and act as the Unit's liaison with the HSE Unit.
2. Develop, maintain and oversee the distribution of the Unit's Health and Safety Program Manual with the assistance of HSE staff.
3. Ensure that safe work procedures are developed and enforced.
4. Develop the health and safety inspection protocol for the Unit.
5. Define the inspection areas, prepare the inspection checklists and develop reporting procedures.
6. Review all accident investigation reports and take preventative measures to prevent reoccurrence.
7. Facilitate the formation of the local Health and Safety Committee by assigning management staff and facilitating the selection of worker representatives.
8. Support the activities of the committee, monitor their effectiveness and respond to committee recommendations on behalf of the Head.
9. Monitor the overall Health and Safety Program performance, including inspection frequency, quality and corrective actions.
10. Meet regularly with the Head to report activities and the status of the program.

<p><b>For the NBK Institute of Mining Engineering, Dr. Maria Holuszko has agreed to fulfill the role and responsibilities of SPA on behalf of Dr. Bern Klein, Dept. Head.</b></p>
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## **ROLES AND RESPONSIBILITIES**

### **Heads of Units:**

- Assign responsibility for the development, implementation and maintenance of all elements of the Unit's Health and Safety Program that includes an effective functioning local Health and Safety Committee.
- Act as or appoint a Safety Program Administrator (SPA) for the unit.
- Select management representatives for the Committee, as per established Terms of Reference and assign authority to management representatives.
- Provide the Health and Safety Committee with the tools and resources to function effectively.
- Ensure that accident and incident investigations are conducted and review the reports.
- Ensure that supervisors and managers are trained and know their responsibilities for preventing or minimizing safety and security risks.
- Monitor the Health and Safety Program for compliance with WorkSafeBC and internal requirements.
- Communicate health and safety action plans, concerns and decisions to respective organizations.
- Review health and safety-related records and statistics at management meetings.
- Ensure that Health and Safety Program reviews are conducted as required.

### **Safety Program Administrators (SPA):**

- Ensure the development, implementation and maintenance of all elements of the Health and Safety Program, including an effectively functioning local Health and Safety Committee.
- Monitor the Health and Safety Program for compliance with WorkSafeBC and internal requirements.
- Attend and participate in all required safety committee and management meetings.
- Review and provide senior management with safety committee meeting minutes and recommendations.
- Provide supervisors with the tools and resources to ensure the success of all elements of this program.
- Communicate safety action plans and recommendations to management and staff.
- Ensure accidents and incidents are investigated and reported. Review these reports.
- Ensure corrective action plans are implemented.
- Develop and monitor procedures for responding to and reporting personal security incidents (workplace violence program) following WorkSafeBC guidelines.
- Ensure that Health and Safety Program Reviews are conducted as required.

### **Supervisors** (Faculty, Managers, Principle Investigators, Technicians, Supervisors, etc.):

- Implement and monitor the Unit's Health and Safety Program in accordance with WorkSafeBC requirements and UBC's Safety Program Policy.
- Instruct, train and monitor employees in safe work practices and workplace violence procedures.
- Develop and implement safe work procedures.
- Communicate health and safety-related information to employees and help implement corrective actions and recommendations.
- Recommend safety and health topics for committee meetings.
- Orient new and transferred employees.

- Hold regular staff meetings.
- Develop, implement and maintain hazard assessment and inspection programs.
- Conduct required regular workplace inspections, special inspections and accident investigations.
- Correct unsafe conditions or practices and ensure hazards are controlled until corrective action is taken.
- Complete proper injury/illness forms and forward copies of reports to the appropriate departments.
- Forward copies of accident/incident investigation reports to the local safety committee and the SPA for review.
- Develop, implement and maintain the Contractor Safety Program.
- Review health and safety records and statistics regularly.

### **Local Health and Safety Committee Members:**

- Hold regular meetings at least once a month for the review of:
  - Reports of current accidents, incidents or illnesses/diseases
  - Remedial action taken or required by the reports of investigations and inspections
  - Other safety and health matters.
- Review and monitor the effectiveness of the unit's Health and Safety Program.
- Make recommendations directly to appropriate supervisor/manager and SPA.
- Assist management in the health and safety program development.
- Function within the set Terms of Reference.
- Post and distribute meeting minutes.
- Conduct formal workplace inspections.
- Assist as required in incident and or accident investigations.

### **Workers and Students:**

- Work in a careful and safe manner.
- Follow departmental safe work procedures and practices, as well as WorkSafeBC requirements.
- Report any real or potential safety/health hazards to the supervisor.
- Actively participate in orientation and training programs, reporting to the supervisors any lack of knowledge needed to perform duties.
- Conduct informal daily inspections of the work area.
- Participate, when required, in scheduled workplace inspections and accident investigations.
- Report all accidents, incidents or near misses to the supervisor.
- Report any real or potential risks of personal security or public safety to the supervisor.
- Cooperate with the Safety Committee in the Safety Program Review process.

## HEALTH AND SAFETY PROGRAM ELEMENTS

### 1. HEALTH AND SAFETY POLICY

#### The University of British Columbia's Safety 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

#### **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.

## 2. MANAGEMENT MEETINGS

### Unit Requirements

Units must strive to take all reasonable care in the provision of a safe and healthy workplace. This requires management to be aware of all issues and activities that impact on that requirement. As a result:

**1. All senior management and supervisors are required to participate in regularly scheduled management meetings.**

The purposes of these meetings are to ensure that:

- Two-way communication between management and workers is established
- Management receives and considers recommendations from the Unit's Safety Program Administrator (SPA) and Health and Safety Committee
- Important aspects of the Health and Safety Program such as inspections, accident investigations, and Health and Safety committee activities are monitored and evaluated.

**2. The requirements for these meetings include:**

- 1) Designating a person to be responsible for carrying out the Health and Safety portion of the meetings. In most instances, this person can be the SPA.
- 2) Meeting at least monthly
- 3) Having a prepared agenda which must include a section on Health and Safety
- 4) Discussing and making decisions on recommendations from the Health and Safety Program and Health and Safety Committee
- 5) Assigning responsibilities for required action and communicating management decisions
- 6) Documenting each meeting to meet due diligence requirements
- 7) Distributing minutes as required.

The effectiveness of these meetings depends on attendance and participation. It is the responsibility of those key persons and those who attend two levels of meetings to ensure that they communicate all important information and decisions at these meetings. It is this link that will complete the communication chain.

### 3. LOCAL HEALTH AND SAFETY COMMITTEE

#### Unit Requirements

1. **All Units with 20 or more employees must have a functioning Local Health and Safety Committee.** Units with 9 to 19 employees must have a Worker Health and Safety Representative who has the same role as a Committee.

A local Health and Safety Committee is a *joint committee made up of worker and employer representatives* working together to identify and resolve health and safety problems in their area. It is an organizational unit that can coordinate health and safety activities and monitor the status of the health and safety program.

*The roles of the local Health and Safety Committees are to:*

- Assist in creating a safe and healthy workplace,
- Recommend actions that will improve the effectiveness of the Health and Safety Program
- Promote compliance with WorkSafeBC and internal requirements.
- Recommend changes to senior management.
- Senior management then, in turn, considers and makes decisions on these recommendations.

*Management will provide all necessary resources to ensure that the Local Health and Safety Committee is able to function effectively.* These include:

- Training for committee members
- Administrative support
- Adequate time for committee members to carry out responsibilities
- Open two-way communication channels.

2. **All meeting discussions and decisions are to be recorded, and the minutes distributed to senior management, the SPA and the Unit of Health, Safety and Environment.**

#### Members

**Current Health and Safety Committee members are:**

<b>Name</b>	<b>Telephone</b>	<b>Area of Representation</b>
Dr. Maria Holuszko	604-822-5475	Faculty rep
Sally Finora	604-822-4292	staff
Bryan Strahl		Undergrad rep

#### References

1. Safety Committee Meeting Minutes (sample template located at [www.riskmanagement.ubc.ca](http://www.riskmanagement.ubc.ca): A-Z Forms and Publications)

## **4. ORIENTATIONS, TRAINING AND SUPERVISION**

### **Unit Requirements**

WorkSafeBC requires Units to provide proper direction and instruction to workers in the safe performance of their duties. Through training and supervision, employees are made aware of hazards and safe work procedures to follow in order to protect themselves.

To meet this requirement Units must provide:

1. Worker Job Orientation
2. On-the-job Training
3. Worker Supervision
4. Orientation and Training Records

### **Worker Job Orientation**

1. The University Human Resource Unit holds a general orientation session for new or transferred University employees.

The following general topics are covered during the orientation:

- UBC objectives
- Job description (including general limitations and authority)
- Performance expectations (general)
- Hours, benefits and pay period etc.

2. Units are also to hold an orientation session for all new or transferred employees. Supervisors conduct Unit orientation sessions for their areas in accordance with Unit Orientation and Training Guidelines. An employee must receive orientation training within 10 working days of his/her start date.

The following general topics must be addressed:

- Unit objectives
- Job description (including specific limitations and authority)
- Performance expectations (specific)
- Wages, hours,
- Training plan
- Health and Safety

### **On-the-Job Training**

On-the-job training is to be provided by supervisors to new staff or when new procedures are introduced. On-the-job training will include:

- Using written work procedures and health and safety instructions to demonstrate the job
- Explaining health and safety aspects of conducting the job
- Explaining who to contact for help

- Gradually letting the employee perform the job, under supervision, until the employee demonstrates the knowledge and skills necessary for the job
- Verifying that the employee has learned the correct job procedures

On-the-job training must be initiated **immediately** when a new employee commences work, or prior to implementing a new work process.

### **Worker Supervision**

1. Unit Supervisors are to ensure that work is carried out as expected by maintaining positive supervision over the work activities in their units.
2. Workers are kept up-to-date on management decisions and action plans through periodic staff meetings, unit memos and internal e-mail.
3. All employees are expected to work according to established safe work procedures. Supervisors will immediately rectify any unsafe actions in accordance with proper corrective procedures.
4. To effectively meet their responsibilities, supervisors must be trained in the following areas:
  - Techniques of effective supervision and instruction, including motivation and communication
  - Incident/Accident Reporting and Investigations and how to take corrective and preventive action
  - Workplace health and safety inspections of their area

### **Orientation and Training Records**

1. Units are to maintain records of orientation and training to verify that employees have received adequate instruction to work safely.
2. The area supervisor is to sign each record (upon completion of an employee's training) and will regularly follow-up on that training to ensure consistency and competency.

## **5. SAFE WORK RULES AND PROCEDURES**

### **Unit Requirements**

WorkSafeBC requires Units to provide appropriate written instructions for all work tasks. Written safe work rules and procedures are formulated to meet WorkSafeBC, UBC and, if applicable, manufacturer's requirements. Safe work procedures should be developed to eliminate or effectively control the hazards in the Unit.

To meet this requirement:

- Senior management and supervisors are to formulate site-specific health and safety rules and safe work procedures
- Management will continually provide the necessary resources to ensure that health and safety rules and safe work procedures are effective
- Management, the Safety Program Administrator, supervisors, and Health and Safety Committee members are to review accident and injury statistics on a regular basis to ensure that established rules and procedures are providing the Unit with the safest work practices.
- Health and safety rules are to be posted in the work areas and specific work procedures are to be made accessible to all employees in the areas where they apply.

Supervisors are to ensure that:

- Health and safety rules and safe work procedures are communicated initially to workers during orientation and on-the-job training
- Health and safety rules and safe work procedures are reviewed regularly at staff Health and Safety meetings.
- Workers are aware of the hazards associated with their work and understand how safe work procedures will prevent or minimize injury.
- Rules and procedures are enforced by immediately correcting unsafe acts or conditions.

All employees are expected to follow established rules and procedures.

## **6. HAZARD ASSESSMENTS AND WORKSITE INSPECTIONS**

### **Unit Requirements**

WorkSafeBC requires that Units ensure that hazards to the health and safety of workers are identified and brought to management's attention. It is management's responsibility to ensure that the identified hazards are eliminated or, where this is not practical, controlled, and that workers are protected from the hazards.

Worksite hazard assessments and inspections are key activities in the prevention of accidents. Their purposes are to:

- Identify existing and potential hazards
- Increase awareness leading to the prevention of workplace accidents and illnesses
- Ensure compliance with standards and regulations.

To meet this requirement, Units are to:

- Conduct Hazard Assessments prior to all new projects, jobs, processes, equipment or hazardous materials
- Conduct regular Worksite Inspections.
- Provide all necessary resources to ensure that hazard assessments and workplace inspections are effective. These include:
  - a. Hazard recognition and inspection training for those conducting inspections
  - b. Time for inspectors to complete their duties
  - c. Established communication channels between inspectors, the local Health and Safety Committee and senior management
  - d. Quick action on recommended corrections.
- Document all assessments and inspections.

### **Hazard Assessments / Task Analyses**

A hazard assessment or task health and safety analysis is recommended prior to the start of any new project, task or job. Its purpose is to anticipate, as much as is reasonable, any hazards that are inherent or could arise out of a new project, task or job. Once the hazards have been identified, the controls for eliminating or minimizing these hazards can then be determined and implemented. Hazard assessments should also be undertaken when major modifications are made to a project, task or job.

The *Task Hazard Analysis Form* referenced in this document is designed for general use. More specific hazard assessment/analysis forms may need to be used, depending on the nature of the work and risks involved. For assistance in developing a hazard assessment form or completing an assessment, call Health, Safety and Environment at 604-822-2029.

## **Workplace Inspections**

Following are the four types of workplace inspections to be conducted:

### **1. Informal Workplace Inspections**

- This is accomplished by supervisors conducting regular walk-throughs of their areas of responsibility and by workers checking their work areas prior to commencing work.
- All employees are expected to maintain continual awareness of hazards in their work areas.
- No formal inspection report is required; however, any detected hazards must be corrected immediately if the task is within the employee's capabilities. If not, the hazard should be reported to the area supervisor or management for correction.

### **2. Regular Workplace Inspections**

- Work areas will be inspected on a regular basis by the area supervisor or a designate. For most environments, these inspections should be conducted monthly. In some low risk environments, these inspections can be conducted on a less frequent regular basis.
- Each supervisor (in conjunction with the SPA) will develop a site-specific inspection checklist.
- The inspection checklists will be completed for each inspection and each supervisor must regularly review and update his/her checklist as required.
- The completed reports shall be forwarded to the SPA on a quarterly basis for review.
- The SPA will provide summaries for the head and the local Health and Safety Committee to review. The Committee is responsible for ensuring inspections are completed regularly, reviewing inspection reports and providing recommendations.
- The area supervisor must ensure that corrective action is taken so that the hazard is eliminated or controlled.

### **3. Health and Safety Committees Inspections**

- Health and Safety Committee Inspections are formal workplace inspections that are conducted by local Health and Safety Committee members *at least semi-annually*.
- An Inspection Report is completed and copies sent to the supervisor of the inspected area, the SPA and the Health and Safety Committee for review.
- The area supervisor must ensure that corrective action is taken to eliminate or control identified hazards.

### **4. Special Inspections**

- Special inspections take place immediately after a malfunction/accident, when new machinery or processes are introduced, or as required by manufacture instructions.
- The area supervisor and a worker representative conduct this type of inspection, along with a specialist when necessary.
- An inspection report must be completed and distributed to the SPA and local Health and Safety Committee for review.
- An investigation may also be required for certain incidents (see element 7 – Accident/Incident Investigations).
- The area supervisor must ensure that any existing unsafe conditions are effectively controlled before commencing an inspection or investigation.



## **References**

1. Task Hazard Analysis Form
2. General Work Areas Inspection Checklist (sample template located at [www.riskmanagement.ubc.ca](http://www.riskmanagement.ubc.ca): A-Z Forms and Publications)
3. Laboratory Inspection Checklist (sample template located at [www.riskmanagement.ubc.ca](http://www.riskmanagement.ubc.ca): A-Z Forms and Publications)

## **7. ACCIDENT/INCIDENT INVESTIGATIONS**

The purpose of accident reporting and investigating is to identify deficiencies in the management of health and safety, take steps to correct these deficiencies, and prevent similar incidents from occurring in the future.

### **Unit Requirements**

Units are required to report the following incidents to Health, Safety and Environment (HSE):

- Work-related injury. The report must be made within 24 hours of the occurrence.
- Disabling occupational disease or allegations of an occupational disease. The report must be made within 24 hours of receiving notification from the worker.
- Work-related death. The report must be made immediately.

The HSE Department is responsible for reporting this information to WorkSafeBC.

WorkSafeBC requires Units to investigate any accident which:

- Resulted in serious injury or death of a worker
- Resulted in injury/illness to a work requiring medical treatment
- Resulted in injury/illness to a worker requiring time loss from work
- Involved a major structural failure
- Involved a major release of a hazardous substance
- Was a blasting or diving accident
- Had the potential to cause serious injury/illness

Management will provide all tools and resources necessary for investigations to be effective. These include:

- Accident investigation training for investigators
- Time made available to allow investigators to complete their duties
- Quick action on recommended corrective actions to prevent recurrence of similar situations.

### **Accident/Incident Reporting**

For all employees, the *UBC Faculty and Staff Incident/Accident Report* must be promptly and fully completed for all applicable incidents or accidents, and sent in to RMS within 24 hours.

For students and visitors, the *UBC Student and Visitor Incident/Accident Report* must be fully completed.

Forms may be obtained online or by calling Risk Management at 604-822-2029.

### **Accident Investigation**

The investigation on an incident must take place as soon as possible after an incident's occurrence.

The investigation team must consist of *an area supervisor and an employee representative*. Each investigator is required to be trained on investigation procedures as well as be knowledgeable of the work performed at the time of the accident.

The *UBC Faculty & Staff Accident Investigation Report* (the second page for the Incident/Accident Report) must be completed and sent in to RMS within 3 business days. A copy of the report must be provided to management and the Safety Committee for recommendations and implementation of corrective actions.

For information on Accident Investigation training, check online or call Risk Management Services at 604-822-6513.

### **References**

1. UBC Faculty and Staff Incident/Accident Report and
2. UBC Student and Visitor Incident/Accident Report

Both available at <http://www.riskmanagement.ubc.ca/health-safety/local-health-safety-programs/resources>

## **8. FIRST AID AND EMERGENCY SERVICES**

The purposes of the first aid and emergency services are to:

- Ensure prompt and effective emergency response
- Minimize the effects of injuries/exposures and promote speedy recovery
- Provide workers with assistance when required

### **Unit Requirements**

1. Units are to provide employees with a quick and effective response in the event of injuries or emergencies.
2. Supervisors are required to communicate emergency numbers and procedures to workers during orientation training and to regularly review this information during staff meetings. Annual emergency and evacuation drills shall be practiced to ensure awareness and effectiveness of emergency routes and procedures. The success of the First Aid and Emergency Service Programs depends on employees knowing what to do in emergency situations, both major and minor.
3. The risks associated with the Unit's work process and related control measures must be communicated with employees and understood.
4. All training, meetings and drills shall be documented to meet due diligence requirements.
5. Management will provide all tools and resources required for these programs to be effective. These include:
  - Appropriate emergency response plans and equipment
  - Training of Unit and UBC emergency responders
  - Time made available to allow key players to complete their duties
  - Established chain of command for emergency situations.

### **First Aid and UBC**

#### **University "2-4444" Central First Aid System**

The Vancouver Fire and Rescue Service (VFRS) provides first aid coverage for the UBC Main Campus 24 hours a day.

Calling 604-822-4444 (or 2-4444 on a campus phone) will summon the Emergency Transport Vehicle, staffed by trained first aid attendants, to the location of the injured person.

The VFRS First Aid attendants will:

- Provide treatment
- Transport a worker to the hospital upon request
- Record each injury in the treatment books
- Complete necessary forms to initiate a WorkSafeBC claim if required.

In any emergency situation, or in situations where serious illness or injury is suspected, **calling 911** is always appropriate. Workers will not be reprimanded for using 911.

### **Local First Aid Stations and Attendants**

In addition to the 2-4444 System, Units are strongly encouraged to establish first aid stations as well as assign qualified first aid attendants throughout the Unit.

The following requirements must be adhered to:

- All first aid stations must have a basic, well stocked, first aid kit and a treatment record book.
- All first aid treatments, however minor, are administered by a qualified, currently certified Level One or above First Aid Attendant.
- All treatments are recorded in the treatment record book.
- The first aid attendants must submit a monthly summary of the treatment record sheets to their Unit's SPA and the Health and Safety Committee for review.

Supervisors must ensure that signs clearly indicating the location of, and how to call for, first aid are posted conspicuously throughout the workplace, and communicated to the workers in the Unit.

#### **Identified first aid attendants:**

<b>NAME</b>	<b>AREA</b>	<b>TELEPHONE</b>
Sally Finora, Forward Rm 401	Forward Bldg, CMP assay lab, chem. stores	604-822-4292 or pager 604-205-0134

#### **Location of first aid kits:**

Main office, coffee room, Forward Bldg Rm 517
Undergrad common room, Forward Bldg Rm 501A
Undergrad lab area, Forward Bldg Rm 403
Assay Lab, Rm 304, CMP
CMP Mineral Process area, Hi-Bay area, near fume hood, Rm 200
Machine Shop, Rm 101, CMP

## **Building Emergency Plans and Procedures**

The Unit has established and implemented plans and procedures for situations that have been identified where emergencies could arise. These plans and procedures deal with workplace accidents/injuries, fire prevention, emergency evacuation, personal security, earthquake and bomb threats.

See the Unit's Fire Plan and the UBC Emergency Procedures and Information Pamphlet. Depending on the nature of the emergency, response will be provided by Vancouver Fire and Rescue Services, the local detachment of the RCMP, Campus Security and/or HSE.

A Fire Safety Director and fire wardens throughout the Unit are to be appointed by the Unit Head. The SPA coordinates the fire wardens, first aid attendants, Health and Safety Committee and supervisors to implement and regularly review these plans and procedures.

### **The area/building's assigned fire wardens are:**

<b>NAME</b>	<b>AREA</b>	<b>TELEPHONE</b>
Be Wassink, (Materials Eng)	Emergency Director for Frank Forward Bldg	
Leslie Nichols	Floor warden, 5 <sup>th</sup> floor Forward Bldg	604-822-3829
Maria Lui	Floor warden, 5 <sup>th</sup> floor Forward Bldg	604-822-2540
Pius Lo	Floor warden for Coal & Mineral Process Bldg	604-822-5044

## **References**

### **1. THE UBC EMERGENCY PROCEDURES AND THE UNIT FIRE PLAN ARE LOCATED:**

Main office, Frank Forward Bldg. Rm 517

Safety Boards in hallway of 5<sup>th</sup> and 4<sup>th</sup> floors, Forward Bldg., near elevators

Safety Board in main foyer of Coal & Mineral Process Labs (CMP) and in basement outside Machine Shop.

## **9. RETURN TO WORK PROGRAM**

The intent of the Return to Work (RTW) Program is to facilitate re-integration of employees to the workplace in a fair and consistent manner. A joint union/management approach will be taken to ensure employees of the University have an equal opportunity to return to work after work-related or non-work-related illness or injury.

The objectives of the RTW Program are to:

- Maintain the employability of all UBC employees who become either temporarily or permanently disabled.
- Minimize employees' financial hardship and emotional stress.
- Provide meaningful, productive employment within its capacity to employees who are able to return to work.
- Reintegrate employees into the workforce in a respectful manner, thereby minimizing the loss of expertise and resources and maintaining employee potential and self-worth.

### **Unit Requirements**

The Unit will follow the return to work procedures as outlined in the University Return to Work Program. For information and assistance regarding this program, contact the Health Promotion Programs section of the Human Resources Department at 604-822-3101.

## **10. PERSONAL SECURITY AND PUBLIC SAFETY**

All members of the University Community including Unit, staff and students shall be provided with an environment safe from violence or the threat of violence.

### **Unit Requirements**

The University is committed to taking appropriate action(s) whenever possible to eliminate or minimize the risk or threat of violence to Unit, staff, students and visitors. Where the risk or threat of violence exists, the Unit must develop a *Preventing Violence in the Workplace Program*.

A *Preventing Violence in the Workplace Program* must include the following four components:

1. Risk Assessment
2. Policies and Procedures
3. Instruction of Workers
4. Response to Incidents

### **Risk Assessment**

The Unit's Safety Program Administrator (SPA) must conduct a risk assessment in any workplace in which a risk of injury to workers from violence arising out of their employment may be present.

When conducting the risk assessments the SPA should consider:

- The nature of interactions between workers and the public
- The nature of the work environment
- The attributes of workers/clients
- Past history of incidents of violence in your workplace and in similar operations

This could include but is not limited to:

- A work site walk-about with affected staff
- An employee personal security survey
- Selected interviews with workers
- A review of crime or incident reports

Members of the Health and Safety Committee should review the risk assessment to ensure that it was properly conducted. The Head of Unit or delegate is responsible for the implementation of recommendations.

### **Policies and Procedures**

Policies and procedures have been developed to address threats to personal security. These include UBC's *Discrimination and Harassment Policy #3* and *Threatening Behaviour Policy #14*. Also, the *Workplace Conduct and Violence Prevention* resource guide is available from Campus Security to assist with development of a *Preventing Violence in the Workplace Program*.



## **Instruction of Workers**

Supervisors inform workers of the nature and extent of the risk of violence that they may be exposed to. Supervisors provide appropriate training to enable workers to recognize the risk, to take preventative measures and to report incidents. This information is communicated during orientation and on-the-job training.

Workers who are faced with the imminent threat of violence should call “911” followed by Campus Security (604-822-2222 or 2-2222 on a UBC telephone) when it is safe to do so. This could include such situations as personal threats of violence, threatening letters and/or bomb threats.

## **Response to Incidents**

Workers are instructed to report all incidents of violence to the area supervisor. The area supervisor will then:

- Ensure that injured workers are attended to and that they are advised to consult a physician if needed
- Inform Campus Security of the situation
- Investigate the situation
- Take steps, if able, to prevent or minimize repeat occurrences; otherwise, report the situation to senior management for correction.

## **11. RECORDS, DOCUMENTATION AND STATISTICS**

Health and safety activities are documented and kept on file for due diligence purposes, and to assist with loss prevention.

### **Unit Requirements**

The types of records that Units maintain are:

- Worker orientation records
- Records of worker and supervisor training with the date, attendance, and general content of the program
- Records of meetings and crew talks where health and safety issues were discussed
- Inspection reports and records of actions taken to solve problems
- Accident investigations reports
- Supervisors' notes and logs of health and safety contacts with workers
- Records showing the use of progressive discipline to enforce health and safety rules
- Subcontractor pre-qualification documents
- Local Health and Safety Committee minutes, showing what steps have been taken to address health and safety issues
- Equipment log books and maintenance records
- Health and safety forms and checklists
- Medical certificates, hearing tests, and first aid records
- Sampling and monitoring records of exposures to harmful substances
- Statistics on the frequency and severity of accidents.

Injury/illness records are used in developing statistics to identify:

- Types of injuries
- Total claim loss for each injury
- Total time loss for each injury

Trend analysis is produced from all data accumulated under the Health and Safety Program to identify patterns, which may lead to the identification of systematic problems not perceived when looking at isolated incidents.

Records and statistics are reviewed regularly at senior management and Health and Safety Committee meetings. This process is crucial to identifying trends and hazards not previously identified, and outdated or ineffective control measures.

### **University Reports**

- All accidents and WorkSafeBC claims must be reported to Risk Management Services on a standard accident report within 24 hours.
- From this UBC information, and data from WorkSafeBC, RMS forwards relevant information to WorkSafeBC and compiles a monthly report that lists the number of accidents and classifies them by cause, injury, job classification and Unit.

- A brief narrative description of each accident is also produced and past year and year-to-date summaries are provided which are compared with the previous year's data.
- The associated WorkSafeBC costs of medical, wage loss, and pension amounts are also reported.
- This report is circulated to the University Health and Safety Committee, VP Admin & Finance, and AVP Human Resources.

## **12. HAZARDOUS MATERIALS**

The Workplace Hazardous Materials Information System (WHMIS) is a major response to the worker's right-to-know about safety and health hazards of materials used in the workplace.

WHMIS legislation provides employees, employers and suppliers nationwide with specific vital information about hazardous materials through the key elements of:

- Controlled product labeling
- Material Safety Data Sheets
- Worker education and training programs

### **Unit Requirements**

On the basis of WHMIS and other workplace information, the Unit has developed work procedures that ensure worker health and safety. Workers must be educated in hazards and trained in work procedures.

### **Annual Chemical Inventory**

An annual inventory of hazardous materials must be maintained which identifies all hazardous substances and their quantities at the workplace. A chemical inventory includes the chemical name (formula) of the material and the size of its container.

Annual inventories allow for the following:

1. To check ethers and other chemicals with limited shelf life.
2. To remove surplus hazardous chemicals
3. To check chemicals that you have not used in the past 1-3 years.
4. To correct incompatible storage.
5. To identify which chemicals are present.

### **Active WHMIS Program**

The Unit implements the WHMIS program using information provided through WHMIS as well as other information from the workplace. WHMIS information is in the form of labeling and Material Safety Data Sheets (MSDS). Other workplace information includes knowledge of the hazards of the workplace, use of hazardous materials that depend upon factors such as quantities used, work processes and work location.

In order to implement a WHMIS program, the Unit will:

#### **1. Establish an inventory of controlled products**

- Contact suppliers for assistance with products supplied to the workplace.
- Collect data on products produced in the workplace and determine whether they are controlled.
- Maintain an up to date inventory.

**2. Ensure that WHMIS labeling and data sheets are in place**

- Have the purchasing Unit or agent request Material Health and Safety Data Sheets (MSDS) from suppliers.
- Have the shipper/receiver or other appropriate person check incoming labels and data sheets for compliance with WHMIS standards.
- Provide workplace labeling where required.
- Ensure up-to-date (less than 3 years old) MSDSs are available to workers

**3. Determine the hazards of controlled products in the workplace**

- Review the specific hazards of storage, handling and use of controlled products in the workplace. Take into account the physical and health hazards of the product, quantities, work processes, location of use, etc.

**4. Establish workplace controls, based on hazard evaluations. Controls include:**

- Engineering controls: i.e. ventilation, process modification and isolation of the source.
- Administrative controls: i.e. work procedures, storage arrangements, maintenance and time scheduling.
- Personal protective equipment used only in situations where other controls are not practicable.

**5. Establish emergency procedures**

- First aid measures
- Fire-fighting/evacuation measures (notify fire Units of hazardous materials).
- Procedures to handle spills or accidental release.

**6. Provide worker education and training**

- Educate workers in how WHMIS works and the hazards of controlled products
- Train workers in the necessary work, handling, storage and emergency procedures for all controlled products in the workplace.
- NOTE: The Unit of Health, Safety & Environment offers a *Chemical Safety Course* that fulfills the worker education and training requirement.

**7. Review and upgrade the program**

- Review the WHMIS program at least once a year.
- Re-instruct workers when necessary.
- Ensure MSDSs are not more than three years old.
- Ensure labels are legible and complete.
- Ensure all workplace controls are effective.

**References**

1. MATERIAL SAFETY DATA SHEETS (MSDS) ARE LOCATED:
  - a. On-line at supplier's websites
  - b. Online, from a UBC computer, at [www.ccohs.ca](http://www.ccohs.ca)

## **13. ENVIRONMENTAL PROTECTION**

### **Unit Requirements**

The University is committed to protecting the environment through ensuring compliance with legislation, demonstrating due diligence, and establishing a process of continuous improvement resulting in environmental stewardship.

### **UBC Policy #6 (Environmental Protection Compliance)**

UBC Policy #6 states that:

*“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.”*

All individuals in Units are to be made aware of UBC Policy #6 - Environmental Protection Compliance and other relevant policies (e.g. UBC Policy #5 – Sustainability). It is a goal of the University that all administrative heads of unit, or their designates, attend the session on “Environmental Responsibilities at UBC”. For information on upcoming sessions contact the Manager of Environmental Services at 604-822-9280.

All individuals within the Unit are responsible for reporting incidents, and serious issues immediately to the administrative head of unit. The administrative head of unit shall advise the HSE Advisor Environment at 604-822-9280 of any serious issues immediately.

### **Activities**

The administrative head of unit, or his/her designate, must conduct a review annually of the operations and activities with respect to applicable environmental legislation, codes of practice, guidelines and UBC policies and procedures. Corrective actions must be taken for areas that are found not to meet requirements. The Unit Head or designate is responsible for ensuring issues identified are addressed and brought into compliance.

The principle investigator will assess the environmental impact of all new projects or activities. Where possible, efforts will be taken to minimize any adverse impacts. All individuals must be trained prior to conducting activities that could impact the environment. Training records are to be documented and training shall be maintained up-to-date.

Disposal of hazardous wastes will be conducted in accordance with all applicable legislation and UBC procedures. For hazardous waste disposal procedures, contact the Environmental Services Manager at 604-822-9280. All individuals handling hazardous materials shall refer to the UBC Spill Reporting Procedures located in the *Laboratory Chemical Safety Reference Manual*.

All individuals, where applicable, are encouraged to participate in the following programs:

- Solvent recovery (contact 822-1285)

- Photochemical Treatment and Recovery (contact 822-1285)
- Chemical Exchange (contact 822-6306)
- Waste Reduction (contact (822-9280)

For assistance or further information contact the RM Advisor Environment at 604-822-9280.

### **Management Review and Reporting**

Environmental issues will be reviewed at the Management Meetings. Serious issues are to be reported immediately to the Environmental Services Manager at 604-822-9280, as well as the unit's applicable Vice President.

## **14. CONTRACTOR HEALTH AND SAFETY**

### **Unit Requirements**

All work carried out at UBC must be in compliance with the BC *Occupational Health and Safety Regulation* [BC OHSR] and UBC requirements. To ensure that contractors carry out work in a safe manner and meet these requirements, the University has developed and implemented a *Contractor Safety Program*.

### **Contractor Requirements**

As a minimum, contractors must:

- Be experienced in all phases of work to be done
- Ensure their workers on a project are adequately trained in the work procedures to be used
- Exercise diligent health and safety management
- Maintain acceptable housekeeping and organization at the site.

Each contractor must submit a written plan that:

- Describes how health and safety will be managed throughout the project
- Identifies the person who will be on site at all times to coordinate work activities and health and safety between trades and sub-contractors.

Each contractor will complete a hazard identification and assessment of the project and work requirements prior to the start of work. The results of the assessment must be communicated to all project workers and posted for reference, and controls must be put into place to manage the hazards identified.

### **Project Work**

Contractors must ensure that work is planned and carried out in a manner that does not expose other workers, UBC staff, students or the public to any undue risk and the work must be carried out so that it has minimum impact on UBC activities.

No work may begin until proper authorization and/or work permits have been obtained. Management will monitor work activities on a periodic basis to determine and ensure compliance with the BC OHSR and internal requirements. Issues of non-compliance and consequences will be dealt directly with the contractor or principal contractor.



## 15. PROGRAM REVIEW

A system for evaluating the operation of the Health and Safety Program must be in place. The purpose of a program review is to determine and implement changes needed to improve workplace health and safety. The program review assesses the effectiveness of the elements of the Health and Safety Program.

### Unit Requirements

**The Unit is to conduct a review of its Health and Safety Program on an annual basis.**

The purposes of these reviews are to:

1. Identify the strengths of the Unit's Health and Safety Program
2. Identify areas of non-compliance (with WorkSafeBC and UBC requirements)
3. Identify where the program could be further improved so as to achieve higher levels of health, safety and compliance
4. Assist the Unit in reducing accidents and claims costs.

The unit's Safety Program Administrator (SPA) and members of the Health and Safety Committee are responsible for conducting these reviews in accordance with established program review procedures, using the *Health and Safety Program Review* document.

A written report is presented to the Unit Head and all levels of management upon completion of the review. Management then authorizes and implements measures to improve the Unit Health and Safety Program. The report is posted and available to all employees.

Management takes action on the evaluation report by:

1. Developing an action plan
2. Prioritizing recommendations
3. Assigning accountability
4. Conducting a follow up

All program review activities are documented to meet due diligence requirements.