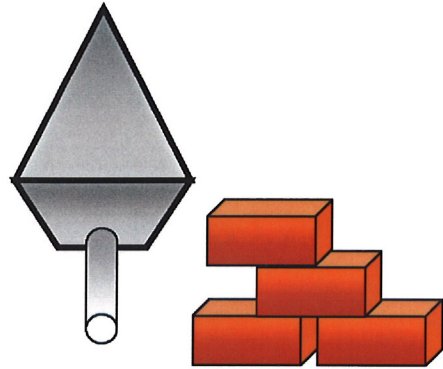




University of British Columbia

**CONTRACTORS'
SAFETY AND
ORIENTATION
MANUAL**



Protocols and processes change with time. The University of British Columbia does not guarantee the accuracy of, nor assume liability for, the information presented here. For up to date information, please contact the relevant agency.

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**UBC CONTRACTORS' SAFETY AND
ORIENTATION MANUAL**

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INTRODUCTION

Welcome to the University of British Columbia. It is the intent of UBC to provide a safe, healthy and secure environment for all members of its faculty, staff, students and visitors.

It is your responsibility to ensure that project work is performed in a safe manner, and that it is in compliance with British Columbia Occupational Health and Safety Regulations, any other applicable provincial and/or federal laws and/or regulations, and any UBC policies, procedures and other requirements that may apply.

The University expectations are that contractors will train, supervise, and direct their employees to be mindful of the safety of UBC's students, faculty, employees, neighbours and property, when performing work on UBC's premises. This manual does not address, and is not intended to abrogate or assume responsibility for, the contractor's duty to its employees. Nor does this manual provide an exhaustive outline of laws, ordinances or regulations governing environmental, health and safety compliance. Rather it is provided to identify specific responsibilities, communicate the availability of hazard information for university properties and to outline UBC Safety and Environmental procedures.

Each contractor must be familiar with all current legislation pertaining to the work and will be responsible to follow and enforce such legislation.

Work being performed in an unsafe or hazardous manner is unacceptable. Each person, regardless of their position, must accept his or her responsibilities and be held directly responsible and accountable for accidents, injuries, and near misses.

Violations may result in temporary or permanent removal of the contractor from the University.

Please read this informative guide carefully. If you have any questions, safety suggestions or concerns, please contact your UBC Owner Representative (Project Manager) for clarification or for additional information.

Contractors should also refer to the UBC Technical Guidelines (<http://www.cpd.ubc.ca>) for additional information and/or clarification of the information provided within this handbook.

U.B.C POLICY STATEMENT ON SAFETY

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 Worker's Compensation Act, WHMIS, and related legislation is the minimum acceptable standard for all construction activities. All persons are encouraged to strive to exceed the minimum legal standards and to eliminate unnecessary risks.

GENERAL UNIVERSITY SITE RULES

Any contractor violating the following rules may be subject to a breach of contract.

1. Contractors shall comply with all Federal, Provincial, Regional and WCB rules and regulations and policies and procedures while working on a U.B.C site.
2. All work, including building equipment and system shutdown, may not begin until the proper authorization and/or work permits have been obtained.
3. Smoking is not permitted within any University building.

4. Firearms, illegal drugs, alcohol, violence, unlawful acts or wilful damage are not permitted at University construction sites.
5. U.B.C actively promotes a safe and secure campus environment and has a "Policy on Discrimination and Harassment" that covers all members of the University community including contractors. The University does not tolerate violations of the policy or human rights legislation, including all forms of actual, attempted or threatened physical harm directed at any person, or any form of sexual harassment such as:
 - Whistling or catcalls
 - Unwanted or unsolicited calls or comments, particularly calls or comments having sexual connotations
 - Staring
 - Throwing items in the direction of passers-by to gain their attention
6. All contractor equipment brought on site must be maintained in safe operating condition. To comply with Provincial electrical regulations, all electrical equipment must be CSA approved. The University reserves the right to remove or prohibit the use of faulty and unsafe equipment, or equipment not complying with the regulatory requirements.
7. Illegal dumping, handling, or disposal of hazardous materials.

8. Destruction or removal, without written permission, of any property belonging to UBC, the property owner, employee or other contractors or employees is prohibited.
9. Unauthorized removal or destruction of a safety barricade, handrail, guardrail, warning sign, fall protection, or other warning devices intended to protect UBC students, faculty, employees, residents, neighbours or property is prohibited.

- Poison Control Centre 604-682-5050
or 604-682-2344
- Provincial Emergency Program – Emergencies
1-800-663-3456
- Provincial Emergency Program - Non-Emergencies
604-586-2665
- RCMP non-emergency (UBC Campus) 604-224-1322
- UBC Health Safety & Environment.... 604-822-2029
- UBC Trouble Calls..... 604-822-2173
- University Hospital - Information..... 604-822-7121
- Vancouver Police Department - Non-emergency
604-717-3321
- Vancouver Fire Department - Non-emergency
604-665-6000

UBC EMERGENCY PROCEDURES

General Emergency Procedures

1. For Ambulance, Fire, Police and Hazardous Materials Incidents

- a) Dial 9-1-1.
- b) Specify whether you Ambulance, Fire, Police or Hazardous Materials Response.
- c) Have the following information available:
 - Building name
 - Building address
 - Floor and Room number
 - Specify best entrance if applicable.
 - If possible, meet the emergency service requested at the building entrance.

2. Other Emergency and Non-Emergency Numbers

- BC Gas Leaks & odours1-800-663-9911
- Campus Security - Emergency..... 604-822-2222
- Campus Security – non-Emergency....604-822-8609

3. Fire, Explosion

In case of fire:

- a) Activate the Fire Alarm.
- b) If possible, and without placing yourself or others in danger, control the fire with the appropriate fire extinguisher.
- c) Follow the Emergency/Fire Plan and evacuate the building, closing doors as you leave. Meet at gathering site.
- d) Call 911 and report the location of the fire/explosion (See Part 1 above).
- e) Wait for emergency personnel, outside, and provide them with information regarding location of fire/explosion, hazardous materials present, MSDS etc.
- f) Do not re-enter the building until the fire department gives permission to do so.

If you hear a fire alarm:

- a) Evacuate the building immediately and proceed to your emergency meeting location. Use the

stairway to evacuate. Never use the elevator if a fire is suspected.

- b) Do not re-enter the building until the fire department gives permission to do so.

4. Earthquake

If you are indoors:

- a) Do not leave a building (danger from falling debris is greater).
- b) Move away from windows and other potential falling objects, taking cover under a sturdy object (desk, table etc.) with your back against an inside wall if possible. "Duck-Cover & Hold".
- c) Do not use elevators.

If you are outdoors:

- a) Move away from buildings, walls, trees, and powerlines.
- b) Do not enter buildings.
- c) If driving: Pull over to the side of the road and stop. Avoid overpasses and power lines. Stay as low as possible and remain inside until the shaking is over.

5. Chemical Emergencies

Any uncontrolled release of hazardous materials is considered a spill and the following procedures should be followed:

- a) Evacuate the area immediately.
- b) Shut Down equipment.
- c) Isolate area and prevent re-entry.
- d) Call 911 (See part 1 above).
- e) Wait for emergency personnel outside and provide them with information regarding location, hazardous materials involved, MSDS etc.
- f) Report the spill. See Spill Reporting (page 12).
- g) Inform UBC Owner Representative.

6. Bomb Threats

Bomb threats can be received by telephone, note, letter, or email. Most bomb threats are made by persons who want to create an atmosphere of general anxiety and panic. All such threats must be taken seriously.

If you receive a bomb threat:

Gather as much information as possible. If the threat comes by phone, ask a lot of questions but allow the caller to say as much as possible without interruption.

a) Questions:

- Where is the bomb?
 - When is it going to go off?
 - What kind is it?
 - What does it look like?
- b) Take notes on everything said, observations about the caller, voice characteristics, language, background noise, the time, etc.
 - c) Contact RCMP – 911 – immediately. You will be advised if evacuation is necessary.
 - d) Call Security – 604-822-2222.

UBC CAMPUS SECURITY

Campus Security is charged with responsibility for the security of the UBC campus. Campus Security serves the UBC community by enforcing regulations (including but not limited to parking regulations), preserving lawful and peaceful activities, and promoting safety.

Campus Security operates on a 24 hours/day, 365-days/year basis. It conducts regular patrols of the campus. In an effort to deter crime and enhance personal safety, Campus Security personnel are authorized to

request identification from any persons on UBC property and to require any person to leave UBC property. Campus Security works in close conjunction with the UBC Detachment of the RCMP. For emergencies, Campus Security dispatch may be reached 24 hours/day, 7 days/week at 604-822-2222.

For administrative matters, during regular business hours please call the Campus Security Clerk at 604-822-8274.

Campus Blue Phones

To call for security assistance, there are 22 outdoor CODE BLUE phones strategically placed throughout the UBC campus. These tower units are blue in colour and are identified by a blue light. All of these phones have a direct and immediate connection to Campus Security 24 hours a day.

PARKING AND BUILDING ACCESS

The UBC Parking & Access Control Services mandate is to provide parking services for faculty, staff, students and visitors to the University and to provide access to UBC campus buildings and property.

1. General Security Guidelines for Contractors

- Contractors must assume all responsibility for the security of the area within the hoarding of a construction project or the area being renovated
- The contractor must ensure that all windows, doors and gates are secure at the end of the day. The contractor must also safeguard the rest of the building from access through possible open

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construction areas. This applies to all sub-trades as well.

- The contractor is responsible for any costs arising when UBC Campus Security Patrol is called to attend a construction site for security matters.

2. Building Access

- New buildings will initially have construction lock cylinders installed in doors prior to the building being accepted. Following acceptance, the UBC locksmith will install permanent lock cylinders. Any access control systems will not be activated until UBC has accepted the building.
- Renovation Projects –the responsibility for authorizing the issue of access keys rests with the UBC Owner Representative.

Note: A refundable deposit must cover all keys issued to a contractor. Rates and refund policy information is available at Parking and Access Control Services located in GSAB 204 Wesbrook Mall.

3. Hours of Work

- Normal hours of operation are 0830 to 1630 hrs. Monday to Friday
- For after hours and weekend work, the Contractor must notify Security (Ph. 822-2222, Fax. 822-3541)

4. Contractor Parking

- All contractors, their employees and sub-contractors must abide by the UBC Parking Regulations

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- All parking within the contractor's hoarding must first be registered with the Parking Office and a permit purchased. **THERE IS NO FREE PARKING ON CAMPUS.** Parking is prohibited on grass areas, boulevards, sidewalks, or any area not designated for parking etc.
- **VEHICLES MAY NOT ENTER THE "EMERGENCY ZONES"** at any time without receiving clearance from Parking and Access Control Services. Unmarked contractor vehicles needing to enter "Service Zones" must obtain a Service Vehicle Permit from Parking and Access Control Services.

5. Parking Facilities used as Laydown/Heavy equipment parking

- Projects that require the use of UBC parking facilities or prevent access to parking facilities require approval by the Parking office. A minimum of three weeks notice is required to allow for alternative parking arrangements.
- Heavy equipment parked overnight on roadway space requires special permission from the Parking office (Ph. 822-6786).

6. Traffic Control

There is constant vehicular and pedestrian traffic on campus. The following traffic rules must be followed at all times:

- The posted speed limit for all roads on UBC Campus is 30 Km/h.
- A traffic control plan that meets legal and regulatory requirements must be submitted to the Dept. of Plant Operations Municipal Services Division for approval 604-822-0014.

7. Notification of contractor emergency numbers

Every contractor must submit two (2) emergency contact names and phone numbers to Parking and Access Control Services at 822-6786. The telephone numbers are to be posted on the project signboard located close to the sites' principal entrance.

CONTRACTORS' SAFETY PROGRAMS

- The Prime Contractor shall have in place a safety program acceptable to the Worker's Compensation Board.
- The implementation of the safety program shall be monitored through monthly safety meetings with the Prime Contractor, contractors and subcontractors. Minutes of these meetings shall be forwarded to the UBC Owner Representative and posted at the site office for view by the public.
- The Prime Contractor shall report the following to the UBC Owner Representative:
 - Immediate notification of incidents or near misses that resulted or could have resulted in injuries requiring medical care.
 - Results of any accident investigations.
 - Safety committee meetings held,
 - Inspections performed and
 - Issues which require coordination with UBC's maintenance forces, such as lock-out, power line contact control or tie in of services shall also be included in these reports.

CONTRACTOR SITE SAFETY PLAN (UBC SPECIFIC)

General:

- The responsibility for safety shall rest with the Prime Contractor.
- The requirements of the WCB - Occupational Health and Safety regulations, the British Columbia Building Code and the British Columbia Fire Code apply as a minimum.
- All contractors and sub-contractors must be registered employers with the WCB.
- The owner will provide the Prime Contractor with any information known to the owner that is necessary to identify and eliminate or control hazards to the health or safety of persons at the workplace.
- The Owner Representative will deal with issues of non-compliance and apply any consequences directly to the contractor or prime contractor.
- As a minimum, contractors must:
 - Provide any safety documentation necessary to meet University requirements.
 - Be experienced in all phases of work to be done.
 - Ensure their workers on the project are adequately trained in the work procedures to be used.
 - Exercise good site safety management

Specifics:

- A Site Safety Plan is required for all additions, renovations and all new buildings regulated under Part 3 of the British Columbia Building Code or when required by the WCB.

- The Site Safety Plan will be presented to the UBC Owner Representative at the first Project Meeting.
- Each contractor will complete a hazard identification and risk assessment of the project and work requirements prior to the start of work. The results of this assessment must be communicated to all project workers and posted at the work site.
- Each contractor must submit a written plan prior to the commencement of work, which will:
 - Identify the Prime Contractor
 - Describe how safety will be managed throughout the project
 - Identify the designated contact person from the prime contractor who will be on site at all times to coordinate safety between the sub-contractors.
 - Control hazards identified in the hazard identification and risk assessment.
- The Prime Contractor shall prepare a Site Safety Plan that will include the names and emergency telephone numbers of:
 - The Prime Contractor,
 - The UBC Owner Representative,
 - The Consultant,
 - The Construction Safety Officer,
 - All sub-trades
 - UBC Parking & Access Control Services.
- The Plan shall also show the details of the construction procedures relating to:
 - Location of all fencing/hoarding around the construction site, site access, barricades, site exits, street and sidewalk closings.
 - Maintenance of any required exits.

- All contractor temporary buildings, construction shacks, sidewalk sheds and material storage sheds.
 - Barricades, excavation guardrails, snow fences.
 - Covered ways, temporary walkways, footbridges, and vehicle ramps.
 - Traffic control.
 - Scaffolding and swing stages.
 - Material and personnel hoists, loading areas, waste material chutes and containers, temporary elevators.
 - Hoisting equipment and their loading areas.
 - Fire protection facilities.
 - Location of fire protection systems, standpipes, Siamese connections, fire extinguishers.
 - Emergency shut-off locations for power, natural gas and water.
 - Material storage.
 - Waste material.
 - Control of dust and debris.
 - Safety measures for perimeter guard rails on open floors.
 - Location of first aid room, MSDS station, combustible storage area, smoking restrictions.
 - Any other items required by the Chief Building Inspector.
- The Site Safety Plan shall be adjusted regularly to reflect the current stage of construction activities.
 - The Site Safety Plan shall be posted on the job site on a 600mm by 600mm piece of plywood

protected from the weather and staked into the ground so as to be visible from the street. Alternatively it may be posted and protected from the weather on the principal construction site entrance or shelter provided for workers or equipment.

- A separate Fire Safety Plan for the construction site shall also be submitted in accordance with the BC Fire Code and will include relevant UBC policies and procedures.

The UBC Owner Representative will respond to issues of non-compliance directly with the Prime Contractor.

HOARDING & PROTECTION AT EXCAVATIONS

- All barricades and barriers on construction sites shall conform to all safety practices required by regulations and good practices.
- Barriers for work outside the construction site must be visible both day and night.
- All walkways in close proximity to job sites shall be built with overhead protection where overhead work is being performed.
- In pedestrian areas adequate warning must be provided for visually impaired pedestrians. Chain link fencing, or hoarding is preferred as it allows blind persons to feel the base of the barricades with their canes. Audible or tactile warning devices may also be required.
- Before setting up barricades in pedestrian areas, the Owner Representative shall be notified at least 48 hours in advance in order that the Crane

Library and Resource Centre can be notified and visually impaired people made aware.

- In vehicular areas, barriers shall conform to the requirements of Part 8 of the B.C Building Code.
- The placement of all barriers in vehicular areas must be in accordance with the pre-approved Traffic Management Plan that includes approvals by Parking & Security Services and if applicable, the Ministry of Transportation and Highways.

PROJECT MANAGEMENT

Construction activity is to be restricted to the following time periods:

- Weekdays - from 7:30 AM to 7:00 PM
- Saturdays - From 9:00 AM to 5:00 PM
- Sundays/Statutory Holidays - no construction activity.

These arrangements are subject to UBC Properties giving specific relief, upon specific application, for time-critical construction situations. Institutional projects where the noise would not impact on residents may be allowed earlier start time, permission to be obtained through Permits at Campus Planning.

Trucks are not to arrive on site before construction start time. The approved staging area for early arrivals is the South Campus Parking lot.

WCB Notice of Project

Where required by regulations, at the start of a job, the Prime Contractor shall submit a notice of project to the WCB, with copies to the UBC Owner Representative.

Contractor Incident/Accident Reporting

The contractor shall report the following incidents/accidents to the UBC Owner Representative and other specified agencies:

- Immediate notification of incidents or near misses that resulted or could have resulted in injuries requiring medical care.
- Accident/incident investigations shall be reviewed at the regular designated meetings with the UBC Owner Representative.
- Spills of chemical, biohazardous, radioactive material or otherwise deleterious substances shall be reported. See Emergency Procedures Section 5 (page 4). Accident/incident reports will be conveyed to the UBC Project Manager.

SERVICE SHUTDOWNS/CONNECTIONS

A Service Shut-down is defined as a total stoppage of the distributed service to a particular area. Note that a minimum of 10 working days advanced notice is required in order to arrange a service shut down.

- A completed UBC 'Application for Service Shut-down' is required to be submitted for any service shutdown.
- A completed UBC 'Service Connection Permit' is required before any project work is connected to a major service.
- Blank forms are to be obtained from the Administration Secretary, Plant Operations Room 1013 - 2329 West Mall. Completed forms are to

be submitted to the Plant Operations Projects Services, Project Representative.

- Plant Operations will notify the contractor and other concerned parties of the date and duration of the shutdown. Plant Operations will carry out the shutdown at the approved date and time.

Overhead power lines

Overhead power lines are under the management of the UBC Utilities Department. Work that is conducted in close proximity to overhead power lines must be carried out in accordance with Part 19 of the Occupational Health and Safety Regulations.

If limits of approach cannot be maintained because of the circumstances of work, the UBC-LBS '30M33 form' must be completed in accordance with WCB Regulations. The Owner Representative and Electrical Utilities Manager of UBC Utilities must be contacted (604-822-4112) before any such work commences.

Permits and Inspections

A Building Permit is required for all projects to which the British Columbia Building Code applies as defined in Subsection 1.1.2 of the Code except as amended by the UBC Development Building Regulations. A separate permit is required for demolition work and excavations. No construction, demolition, excavation works may be started without a Building Permit and the applicable Trade Permits.

Application for Building Permits will be made on the form provided with supporting documentation to the

Chief Plan Examiner, Regulatory Services. When approved, Building Permits may be picked up upon payment of the required fees and damage deposits. A Landscape and Infrastructure Permit is required for all work on UBC Property that materially affects the use of the land as a public amenity. The certified co-coordinating professional engineer or landscape architect shall pay a refundable deposit for both repair of damaged public property and deposition of "As built drawings".

Excavation and Backfill Permits

Excavation permits are required for:

- Any machine excavation, no matter how deep.
- Any excavation deeper than 500mm.
- Any penetration of earth with drill, piles, augers, spikes etc.
- Any penetration of concrete deeper than 50mm.

UBC Inspectors

UBC's Inspectors are given full and complete access to all construction sites in order to fulfill the following functions:

- Enforcing the provisions of the B.C Building Code, UBC Building Regulations and other provincial codes.
- Providing a check and balance on the required Field Review of the Registered Professionals.
- Inspecting to determine that UBC's interests are protected.
- Assessing requirements for Excavation, Plumbing and Building permits.

The contractor, the UBC Owner Representative and UBC Regulatory Services shall coordinate inspection activities for the site.

The following inspection division shall be contacted by calling UBC Regulatory Services:

- Chief Plan Engineer 604-822-2633
- Mechanical Engineer 604-822-2633
- Electrical Engineer 604-822-2633

Fume Hood Installations

- When fume hood ventilation systems are to be worked on, or shut down to facilitate other work, laboratory personnel responsible for the system shall receive 10 days prior notice. Contractors shall follow the detailed procedures outlined in UBC LBS Work Procedure "I-B-16 - Fume Hood System Maintenance and Repairs". A copy of the procedure should be obtained from the UBC Owner Representative.
- New fume hood designs must be submitted to UBC HSE for approval prior to installation. After installation, HSE must be contacted for final inspection and approval before the hood can be placed in service.

GENERAL HAZARD REQUIREMENTS

Lock-Outs

Lockout procedures will apply to any work being carried out on machinery or systems, including items that are powered, pressured or energized, or to all situations where a device is required to be put in place so that work

can be carried out safely. Lockout procedures are mandatory and will be strictly enforced. Non-compliance with the procedures will be considered a breach of contract.

- Contractors' Equipment Isolation and Lockout procedures will conform to WCB - BC Occupational Health and Safety Regulations and to UBC-LBS 'I-B-2 Isolation & Lockout Procedure'.
- All contractors will supply their own locks.

The following systems require the use of Lockout procedures:

- a) **Confined Space Entry – Piping Lockout**
Confined spaces must be effectively isolated from piping systems containing hazardous substances or substances under pressure in accordance with WCB Regulations and UBC confined space isolation procedures.
- b) **Steam and Condensate Lines**
All sections of steam lines being worked on shall be isolated and reactivated by UBC Utilities. UBC Confined Space Program elements apply and shall be adhered to by all contractors.
- c) **Hard Wired Machines**
All hard-wired machines shall be locked out in accordance with the UBC 'I-B-2 Isolation & Lockout Procedure'.

Personal Protective Equipment

The use of personal protective equipment (PPE) must conform to the WCB OH&S regulations.

- All consultants and contractors must provide their own protective clothing and equipment when required for access to any restricted location on the UBC campus.
- Specialized PPE may required for certain activities and/or when using specific equipment and/or materials. It is the responsibility of the contractor to ensure the required equipment is supplied and used.

Rooftop Access

Access to all rooftops of UBC buildings is restricted and is controlled by the UBC Land and Building Services Procedure 'I-B-6: Fumehood Mechanical room and Roof Top Access'. A Roof Top Access application form and key authorization form can be obtained from the UBC Owner Representative. All contractors will provide their own safety equipment.

Confined Space Entry

All contractors and consultants must conform to the WCB OH&S regulations with respect to entering confined spaces.

Confined spaces on the UBC site include such areas as, but are not restricted to, manholes and service tunnels. Contractors and consultants will coordinate all work on steam distribution systems and confined spaces with the

Owner Representative and UBC Utilities. Work shall conform to the *UBC Confined Space Program*.

Locating Underground Utilities

Designer Responsibility: Project consultants or designers must obtain record drawings for all underground utility services from Campus Planning Records Department (telephone 604-822-9570). Digital records are to be obtained and imported into the project drawings to assist the contractor with locating existing underground services. Records for non-UBC Utilities' services that may exist in the area (BC Hydro, Terasen Gas, Telus, street lights, etc.) are to be obtained from the respective companies/organizations.

Contractor Responsibility. Once the applicable permits are approved and record drawings obtained, the Contractor performing construction is responsible to locate all underground services as per B.C. Master Municipal Construction Documents (MMCD) standards, section 4.3.4. Before excavating or drilling with powered tools and equipment, the location of all underground utility services in the area must be accurately determined, and any danger to workers from the services must be controlled as require per WCB Part 20, Section 20.79.

Utility Responsibility: Once the project team has obtained permits, record drawings, and made all reasonable efforts to locate underground utility services and upon request, UBC Utilities will provide trades staff support to perform field inspections to assist in verifying locations, condition, and features of existing underground services *that fall within Utilities' jurisdiction*. UBC Utilities' engineering and technical professionals will

support trades staff. Costs for on-site support will be the responsibility of the Project via a UBC Work Request.

Environmental Protection

All contractors must be aware of their environmental responsibilities. All contractor activities must comply with all applicable Federal, Provincial and Regional environmental legislation and UBC environmental procedures, to ensure that the impacts of their activities are assessed, mitigated and minimized to the greatest extent possible.

Health, Safety and Environment reserves the right to conduct an environmental audit of the contractor's UBC campus work-site at any time to ensure that work activities are meeting regulatory requirements and to ensure that the environmental impacts of a contractor's activities are being managed appropriately.

The contractor shall immediately notify Health, Safety and Environment (Ph. 604-822-2029) of any activity, occurrence, or incident that may have a potential to damage the environment and that is beyond the effective control of the contractor.

Hazardous Materials Management

All hazardous materials brought on the University site must be handled in accordance with all Federal and Provincial Regulations. Contractors must ensure:

1. No spills or leaks occur which could expose anyone to any airborne contaminants and/or have an impact the environment.
2. Work procedures are developed to ensure contaminant exposure to building occupants, and any

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disruption of routine work, is minimized through supplementary ventilation, coordination of work activities and worksite isolation.

3. Material Safety Data Sheets (MSDS) are available for all controlled products on site.
4. All containers are labelled in accordance with applicable regulations.
5. All employees are provided the necessary training and provisions to ensure they are fully qualified and properly equipped to handle all hazardous materials being used on the site.
6. All shipments of dangerous goods include proper documentation as required by the Transportation of Dangerous Goods (TDG) Regulations.

Spill Reporting

Contractors are responsible for reporting spills that result from activities performed on UBC premises. Reportable levels for certain substances are listed in the applicable schedule in the BC "Waste Management - Spill Reporting Regulations". Contractors should also refer to UBC Health Safety & Environment (HSE) - "Spill Reporting Procedures" (found at <http://www.hse.ubc.ca/innerPubsAndProcs.php?ct=pc>) for UBC procedures and forms that may be required.

A UBC Spill Reporting Form must be completed and a copy faxed to UBC HSE as soon as reasonably possible with a copy being forwarded to the applicable Administrative Head of Unit. UBC HSE must also be notified by phone at 604-822-2029.

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Contact Authorities:

- Provincial Emergency Program (PEP): - 604-387-5956 or 1-800-663-3456.
- Vancouver Fire and Rescue Services: - 911.
- UBC Health, Safety and Environment: Ph: 604-822-2029, Fax: 604-822-6650

Hazardous Materials Disposal

Hazardous waste materials are substances covered by Transportation of Dangerous Goods (TDG) Legislation that are intended for recycling, treatment or disposal. All hazardous waste materials shall be temporarily stored, transported and/or disposed off site according to the handling labelling, record keeping and documentation requirements (i.e. waste manifests) of the British Columbia Waste Management Act, Special Waste Regulations, the British Columbia Occupational Health and Safety Regulations and the Federal TDG Regulations.

- All hazardous material shall be removed from site on a regular basis. There shall be no undue delay in having waste materials removed from the university site.
- Any disposal of hazardous materials through the UBC Environmental Services Facility is strictly limited by prior arrangement. **UBC HSE (Ph: 604 822-9280).**
- Hazardous waste materials, which are in temporary storage, shall be stored in a secured area provided with secondary containment. The area shall be secured and labels and placards identifying the hazards will be placed in strategic locations.
- Waste materials contaminated with solvents, oils, grease, paints, or flammable materials shall be placed in covered metal containers and properly labelled.

- If hazardous waste materials are being held in temporary storage areas, fire extinguishers shall be strategically located near the temporary storage area and clearly identified.
- All shipments of dangerous goods must include proper documentation as required by the Transportation of Dangerous Goods Regulations.

Polychlorinated Biphenyls (PCB's)

The handling, storage, and transportation of PCB containing materials must be carried out in accordance with the following Provincial and Federal regulations and documents:

- Special Waste Regulation of the British Columbia Waste Management Act.
- Environment Canada Handbook on PCB's in Electrical Equipment.
- Storage of PCB Material Regulations (SOR/92-507), Canada Environmental Protection Act.
- CCME Guidelines for the Management of Waste Containing PCB's, Canadian Council of Ministers of the Environment, Sept. '92.
- Identification of Lamp Ballasts Containing PCB's, Environment Canada.

PCBs may be found in light fixture ballasts as well in other sources. The procedure for the removal and disposal of PCB containing light fixtures shall be carried out in accordance with the UBC Technical Guidelines.

Asbestos Management

All asbestos handling and removal will be carried out in compliance with applicable BC Occupational Health & Safety regulations, the UBC Asbestos Management Program (AMP) LBS I-B-5 and with the WCB Publication "Safe Work Practices for Handling Asbestos."

- If during the course of work, the Contractor or Sub Contractor discover materials suspected of containing asbestos:
 - They must immediately stop work on this material,
 - Notify the Owner Representative and/or the AMP,
 - Protect the site to prevent any further potential exposure to workers, staff, students and/or the public.
 - The Owner will take immediate appropriate action to determine if there is ACM present and will provide direction to the Contractor or Sub Contractor as to how to proceed.
- The AMP must be informed of all work on asbestos containing materials conducted at UBC.

Asbestos Identification Program


Labels indicating the presence of asbestos containing materials are located on the jambs of entry doors to all rooms. If there is no sticker or a discrepancy between the door sticker information and the information communicated to the Contractor in the Contract


Documents, the Contractor must contact the AMP for clarification.

These labels are coded in accordance with the following diagrams:


UBC Health, Safety & Environment
Land & Building Services
2329 West Mall, Vancouver, B.C., Canada V6T 1Z4


ASBESTOS IDENTIFICATION PROGRAM


 AREA CONTAINS WRAPPED OR NON-FRIABLE ASBESTOS - DO NOT DISTURB


 AREA CONTAMINATED WITH ASBESTOS - SPECIAL ENTRY PROCEDURES REQUIRED


FUNCTIONAL AREAS CONTAINING ASBESTOS


 ASBESTOS IN ABOVE CEILING SPACES


 ASBESTOS ON CEILING SURFACES

 ASBESTOS ON WALLS (DRYWALL OR CEMENT BOARD)

 ASBESTOS IN BELOW FLOOR AREAS


 ASBESTOS ON VISIBLE PIPING AND/OR DUCTING



 ASBESTOS IN FLOORING MATERIAL



 ASBESTOS IN FIRE DOORS

**FOR INFORMATION CONTACT THE
UBC ASBESTOS MANAGEMENT GROUP
AT (604) 822-8772**

**UBC ASBESTOS
MANAGEMENT PROGRAM**

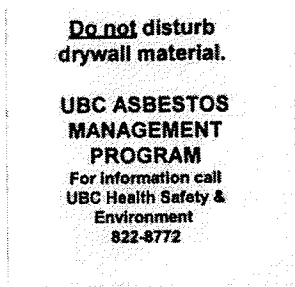


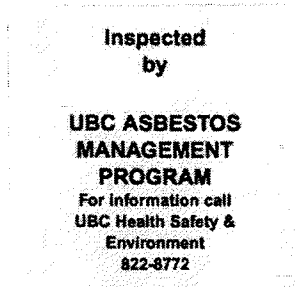
 

For information call
UBC Health Safety & Environment
822-8772

Additional stickers may also be present:



Indicates the presence of asbestos drywall in the room without the presence of any other suspected materials ordinarily identified on the identification key.



Indicates that there is no asbestos in the larger construction materials of the room. Note that this does not include smaller materials such as glazing putty, fire stop or other materials not normally identified by the door labelling system.

For more information contact:

- LBS Health and Safety Manager: 604-822-1885
- Asbestos Program Supervisor: 604-822-7206
- Asbestos Data Coordinator: 604-822-8772
- For Additional Information: www.hse.ubc.ca

Construction in Laboratories

Contractors shall not handle hazardous materials or research equipment in laboratories unless the work is specifically included in the contract.

Radioisotopes

- All design and construction of facilities designed for radioisotope use shall be reviewed and approved in writing by UBC Health, Safety and Environment.
- Where applicable, the UBC Owner Representative shall contact UBC HSE at least 10 working days prior to project start up to enable the Radiation Safety Office staff to perform a radiation risk assessment.
- Radiation warning signs are only to be removed by Radiation Safety Office staff. Questions concerning radiation hazards may be directed to the RSO (Ph: 604-822-7052).

Industrial Radiography (Non destructive testing)

- Non-destructive testing involving x-ray or gamma radiation sources or x-ray emitting devices shall be in accordance with the Canadian Nuclear Safety Commission and WCB Regulations to minimize radiation exposure to workers, other building occupants and passers-by.
- All testing of this nature must have prior approval of the UBC Radiation Safety Office. (Ph: 604-822-7052).

Bio-Safety and Other Hazards

- Biohazard containment equipment, which cannot be moved, and presents a potential for injury, will be locked out and sealed.
- Biohazard warning signs are only to be removed by HSE staff. Questions concerning Biohazards may be directed to the Biosafety Officer (Ph: 604-822-7596).

EMERGENCY

FIRE



POLICE



AMBULANCE



9-1-1

Other Emergency and Non-Emergency Numbers

BC Gas Leaks & Odours	1-800-663-9911
Campus Security -Emergency...	604-822-2222
non-Emergency.	604-822-8609
Land and Building Service-Health and Safety	604-822-1885
Land and Building Service-Asbestos Coordinator	604-822-8772
Parking and Access Control.....	604-822-2222
Poison Control Centre.....	604-682-5050
Provincial Emergency Program	
- Emergency	1-800-663-3456
- Non-Emergencies.....	604-586-2665
RCMP non-emergency (UBC Campus)	604-224-1322
UBC Health Safety & Environment	
UBC Regulatory Services.....	604-822-2029
UBC Trouble Calls.....	604-822-1885
University Hospital - Information..	604-822-2173
	604-822-7121