



bmsc BAMFIELD MARINE
SCIENCES CENTRE

General Safety Manual

Bamfield Marine Sciences Centre
Bamfield, BC, VOR 1B0

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BMSC Scientific Diving and Safety

Table of Contents

| | |
|---|----|
| BMSC Staff Contact List..... | 3 |
| Emergencies | 4 |
| Medical Emergency..... | 4 |
| Building Evacuation..... | 5 |
| (Fire, gas leak, tsunami, or following an earthquake)..... | 5 |
| Fire Emergencies | 6 |
| Provincial Emergency Program..... | 8 |
| Earthquake Evacuation Procedures:..... | 8 |
| Tsunami Procedures | 9 |
| Hazardous Materials Incident Response..... | 10 |
| Police Emergency | 11 |
| Poison Control..... | 12 |
| General First Aid and Reporting..... | 12 |
| Accident/ Incident Reporting | 13 |
| The BMSC Site..... | 14 |
| General Field Work | 14 |
| Rogue Waves..... | 15 |
| Workplace Hazardous Materials Information System (WHMIS)..... | 15 |
| MSDS Location | 17 |
| Transportation of Dangerous Goods (TDG)..... | 17 |
| Boats | 18 |
| Copes, Raider and Skiffs..... | 18 |
| Alta and Barkley Star..... | 18 |
| Fueling Station | 18 |
| Diving and Snorkeling | 18 |
| Building Safety | 19 |
| Electrical Safety..... | 19 |
| Safety Orientation..... | 19 |

BMSC Staff Contact List

| | Home | Local |
|--------------------------------|----------------------------------|---------------------------------|
| First Aid Attendants | Siobhan Gray Nicole Gerbrant | 222 216 |
| First Aid cell (0830-1630) | | 250 720 1433 |
| Director | Dr. Brad Anholt | 215 (office) 240 (residence) |
| Public Education Coordinator | | 226 |
| Research Coordinator | Dr. Eric Clelland | 255 |
| University Program Coordinator | Nicole Gerbrant | 216 |
| Head of Maintenance | Scott Martin | 272 |
| Head Electrician | Jack Radoslovich 250 728 3623 | 248 |
| Maintenance | | 223 |
| Head Chef | Patrick Edmonson | 239 |
| Alta Skippers | John Richards Janice Pierce | 224 266 |
| Office | Shirley Pakula | 221 |

Action Plan in the field

In the event of a wide spread emergency such as an earthquake or a tsunami you should follow the field protocol depending on where you are at the time and adjust accordingly.

Field Protocol:

1. Get to safety as soon as you believe there to be a large scale threat.
 - a. Move to higher ground in the event of an earthquake or tsunami warning signal
 - b. Get a head count to ensure all members of department are present
2. Establish communication with a central command or set up a radio relay to get information.
3. Tend to first aid if needed
4. Establish order and shelter while waiting for further instruction

Rally Points:

1. East side: fire hall
2. West side: fire hall
3. Anacla/Pachena Beach: House of Huu-ay-aht (may not be accessible i.e. flooding)
4. BMSC: A -traffic circle or if threatened: B-tennis court

Emergencies

Medical Emergency

In the event of a medical emergency, call the Bamfield Health Clinic nurse first. If you get no reply, call **911**. The Bamfield Coast Guard Station or Tofino CCG Radio and/or Joint Rescue Co-ordination Centre may also be contacted. During working hours the BMSC First Aid Attendant must be contacted and should also be contacted (if possible) after hours:

***When dialing from BMSC dial 9- for an outside line**

Bamfield Health Clinic nurse: 250 728 3312 office
 250 735 1151 Cell Phone
 VHF Ch 82

Bamfield Coast Guard Station: 250 728 3322
 VHF Ch 16

Joint Rescue Co-ordination Centre: 1 800 567 5111

Tofino Coast Guard Radio: 250 726 7312
 VHF Ch 22A
 VHF Ch 16

Ambulance: 911
 1 800 461 9911 Remote Loc

Medical conditions, allergies and food intolerances

Individuals with food allergies or intolerances are to identify themselves to the cafeteria and first aid staff immediately upon arrival, most notify prior to arrival. Any severe allergy students/users are to identify themselves to the safety officer and kitchen prior to arrival and are checked with if they have an epi-pen. For published students and visitors: If a student or visitor staying on site does carry an epi-pen a second one is to be lent to the chaperone that will be accompanying them during their stay.

Epi-pen locations:

- i. First aid kit outside main office 24 hrs access**
- ii. First aid room in ground level of the Rix Centre 24 hrs access**
- iii. Foreshore dive shed 24 hrs access**
- iv. Whale lab first aid kit
- v. University Program Ofc. L3 first aid response bag in office
- vi. Kitchen first aid kit
- vii. L3 First aid response bag in DSO's office
- viii. Barkley Star
- ix. M.V. Alta

Building Evacuation

(Fire, gas leak, tsunami, or following an earthquake)

In the event of a major emergency, it is important to evacuate buildings and converge at the emergency assembly area, the traffic circle, for a head count.

Each building has a "Building Emergency/Evacuation Plan" displayed on each floor. Department Heads are responsible for the areas where most of their department may be found and act as the Fire Wardens. Department Heads should also appoint a Fire Warden Deputy to act in case of their absence. Responsibilities include making sure that all of their staff and associates are briefed with emergency procedures, maintaining fire routes and escape plans are clear of blockages and overseeing the evacuation of their areas in the event of a fire or other life threatening emergency. Below is the list of buildings and areas each Department Head is responsible for, (when the department head is away they need to appoint a staff member to fill in for their safety duties):

Director or Designate

- first level of the Main Building (including the Library)

Diving and Safety Officer

- Boat Shed
- Dive Shed

Grounds Keeper

- old dorms
- Buchanan Lodge

- Researcher cabins (8)
- Head of Maintenance
- Workshop
- Kitchen Head
- Cafeteria , cafeteria building lecture hall and fire-side lounge
 - Rix Centre kitchen
- Public Education Coordinator
- Whale Lab
 - COTC building (if being used by Public Education)
 - Rix Centre classrooms (if in use by Public Education)
- Research Coordinator
- Research Level of the Main Building
 - Aquaria Level of the Main Building
 - Cable Tank (if in use)
 - Ecophysiology Building
 - COTC (if being used for research purposes)
 - Rix Centre research level
 - Fluid Dynamics Lab
- University Program Coordinator
- Teaching level of the Main building
 - COTC (if being used by university programs)
 - Rix Centre classrooms (if in use by University Programs)

Familiarize yourself with the Building Emergency Plan, check the Evacuation Floor Plans for your building and note your closest fire exit. Consider alternate evacuation routes in case your exit is not accessible.

Fire Emergencies

If you discover a fire:

- Activate the nearest fire alarm pull station. (Consult Emergency Evacuation Floor Plans)
- **Call 911.** State your name and location of fire.
- If the fire is very small, use a fire extinguisher. Do not endanger yourself.
- Evacuate the building. If you activated the alarm alert the fire warden responsible for the area (in most areas this will be the department head).

If you hear a fire alarm:

- If possible secure equipment, close windows and doors. Do not lock doors.
- Follow the evacuation route established in the building you are located in.
- Assist individuals with mobility disabilities to the designated refuge area, the traffic circle.
- Provide information about the fire and disabled individuals to the Fire Department.
- Meet at your Department's designated Emergency Assembly Area. The emergency assembly area is the traffic circle outside the main building or the

dining hall. If these areas are compromised then the tennis court should be used.

- Do not re-enter the building until permission is given by the Fire Department.

If you cannot evacuate:

- Close the doors between you and the fire.
- If possible call **911** and advise the Fire Department of your situation.
- Hang clothing or a cloth from a window to alert emergency response personnel.

Keep exit routes and fire safety equipment unobstructed and report any fire hazards to the Department Head whom is responsible for your area of study or work.

When dialing from BMSC dial 9- for an outside line

Emergency: 911 Dispatch/ Bamfield Volunteer Fire Dept

Portable Fire Extinguisher Operation:

A fire extinguisher is designed to put out a small fire. If you have any doubts as to whether or not you should try to extinguish a fire, leave the area, ensure the fire alarm system is activated and call the Fire Department.

The class designation indicates the type of fire the extinguisher is intended to extinguish. Ordinary combustibles such as paper, wood, cloth and plastic are classed as Class A fires, flammable liquids such as gasoline, paints and solvents are classed as Class B fires and electrical fires which involve energized electrical wiring, circuit breakers and appliances are classed as Class C. A Class ABC extinguisher is intended to extinguish fires of Class A, B and/or C.

Extinguishers must be recharged after any use. When an extinguisher is used contact the Grounds Keeper, Richard Zoet, so that it can be recharged and put back into service.

Directions for use:

1. Pull safety pin from handle.
2. Aim (nozzle, cone, horn) at the base of the fire.
3. Squeeze the trigger handle.
4. Sweep from side to side (watch for re-flash).

Provincial Emergency Program

Emergencies and Disasters

To be prepared for a wide spread emergency or disaster all BMSC employees should review the building specific procedures in which they will be working in. General emergencies and disasters may take many forms. Below you will find some specific and general guidelines to follow in the event of an emergency. The general emergency plan in most situations closely follows the above guidelines for fire emergencies. Earthquakes and tsunamis are covered as well but other such incidents such as floods, storms, landslides, avalanche, disease outbreak, wildlife incidents and missing persons should all follow the same standard emergency response.

Many BMSC employees are entrusted with a “duty of care” or a responsibility of others. This includes department heads for their staff, Public Educators for visiting groups, course instructors and TAs for students and PIs for research groups. Each of the above mentioned overseers should familiarize themselves with the safety procedures laid out in this manual, as well as the PEP Bamfield Community Emergency and Disaster Plan.

The Bamfield Community Emergency and Disaster Plan can be reviewed by contacting the Bamfield Community Plan Coordinator Linda Myers 250 728 1233. The Provincial Emergency Plan maintains a toll-free message line with emergency preparedness information, at 1-888-811-6233.

The community’s Provincial Emergency Plan has three command centres set up in town that will become active in the event of a community wide emergency. The command centres for Bamfield are the fire hall on the east side, the fire hall on the west side, and the House of Huu-ay-aht in Anacla/Pachena. These areas will be communication posts and rallying points for the town. If a widespread emergency occurs these are the areas that all people off the station site should move to.

When dialing from BMSC dial 9- for an outside line

Provincial Emergency Program (24hrs) 1 800 663 3456

Earthquake Evacuation Procedures:

Before:

- Assess your work area for non-structural objects that may cause injury (ie. microscopes, bookshelves, TVs and models).
- Move large heavy items to lower shelves, and ensure that shelving is secure. Consider using lips on laboratory shelving.

- Consider securing valuable equipment and computers to allow for a rapid recovery. Information on securing devices can be obtained from the Research Coordinator or Stores in the main building.
- Encourage members of your Department/Unit to consider earthquake preparedness issues for their family and home.

During:

- Move away from windows and heavy objects.
- Duck, cover and hold. Crouch low to the ground; protect head with your arms; seek cover under and hold onto heavy furniture. Watch for moving objects.
- If you are in an interior hallway, stay there and crouch against the wall. Watch for swinging doors.

After:

- After the shaking stops, count to one hundred, if there is evidence of damage (broken glass/dislodged ceiling tiles/cracks in the wall) look for a safe egress, evacuate the building.
- Try to assist disabled or injured individuals.
- Head for Assembly point A -traffic circle. If the Traffic circle is in jeopardy Assembly point B is the tennis courts. Keep away from power lines and buildings to avoid falling debris.
- Report missing persons to: Emergency Personnel, BMSC First Aid Attendant and Director.
- Determine the status of your Department's personnel, assist students and visitors, and report injuries to the main office and the First Aid Attendant. Typically the muster area is the traffic circle outside the main building or the dining hall. If these areas are compromised then the tennis courts should be used.
- Report damage to buildings and utilities to Head of Maintenance.

BMSC joins the Bamfield Community Emergency Program at its reception centre (the Bamfield Community school) to establish safe holding, continued care and to inform provincial programs of our status.

***When dialing from BMSC dial 9- for an outside line**

Provincial Emergency Program (24hrs): 1 800 663 3456

Tsunami Procedures

Tsunamis are caused by earthquakes or landslides that create large waves in the water that can travel thousands of kilometers. The west coast of Vancouver Island is susceptible to such events, thus BMSC staff need to have a good understanding of what to do in this emergency.

Before:

- Be aware of the tsunami emergency procedures.
- Locate the meeting area closest to your area of work.

During:

- When you hear the siren from the Fire Hall sounding continuously (when the fire alarm sounds it is intermittent) leave the building or area you are in, warn people at lower elevations, and head for the traffic circle. If the Traffic circle is in jeopardy assembly point B is the tennis courts.
- If time permits Department Heads should ensure evacuation of low lying areas they are responsible for as per the building evacuation.
- If you are on the water front and see a quick drop in the water resist the urge to go and take a look but instead gather all those with you and head for higher ground, such as the traffic circle or the hill at Brady's Beach; if possible let others in the area know that they should also be heading towards the central meeting area, the traffic circle.
- If you are responsible for others in the lab or groups make sure that all the students or clients all go up to higher ground.
- Assist any persons that may need assistance in moving to higher grounds quickly.

After:

- Account for all those in your area to see if there are any missing persons.
- Assist the First Aid Attendant to help those who may be wounded.
- The First Aid Attendant should alert the authorities via 911.
- If there are missing people a search should begin to locate any people still in buildings or trapped.
- Watch for debris, and falling objects including flooring and walls.
- Report damage to buildings and utilities to Head of Maintenance.

BMSC joins the Bamfield Community Emergency Program at its reception centre (the Bamfield Community school) to establish safe holding, continued care and to inform provincial programs of our status.

When dialing from BMSC dial 9- for an outside line

Provincial Emergency Program (24hrs): 1 800 663 3456

Hazardous Materials Incident Response

Many hazardous materials are located on site and used in a variety of labs. If you have any questions regarding these are other materials please contact the

Research Coordinator. MSDS sheets can also be found online from any station computer at <http://ccinfoweb.ccohs.ca/msds/search.html>.

If the spill can be safely managed by you and your department:

- Get assistance and notify your supervisor. Never rush or work alone.
- Clearly assess the situation before starting clean up and use proper protective equipment.
- Use departmental spill clean-up equipment if available. Departments may obtain a spill kit from the Research Coordinator or Stores.
- Collect the wastes in a suitable container and request disposal from Occupational Health and Safety.

For major incidents involving hazardous materials that cannot be controlled by department personnel:

- Evacuate the area and close the door.
- If the release cannot be contained in the room, evacuate the building, and direct people away from the spill area.
- From a safe location call **911** and the Head of Maintenance and the Research Coordinator and explain what has happened.
- Stay up-wind of the building.
- Identify yourself to emergency response personnel.

***When dialing from BMSC dial 9- for an outside line**

Emergency: 911 Dispatch/ Bamfield Volunteer

Fire Dept

First Aid attendant 250 720 1433 Siobhan Gray x 222

UVIC Hazardous Waste contact (250) 721- 8970

Research Coordinator ext 255

Head of Maintenance ext 272

Director ext 215 and 240 (home)

See contact sheet for other numbers

Police Emergency

There are no police or RCMP located within the town of Bamfield. Any incidents that require the assistance of the police should be reported immediately to the Director or the main office switch board. If the main office is closed the Port Alberni Police can be contacted directly by **911**.

BMSC Main Office Switchboard ext 221

When dialing from BMSC dial 9- for an outside line

RCMP Port Alberni: 911 or 250 723 2424

Poison Control

In the event of a person potentially being exposed to a poisonous substance the following procedures should be followed as quickly as possible. See above to the Medical Emergencies Protocol for all situations where poisons may be involved.

When a poisonous substance has been exposed to people at risk the containers should be kept and read for any treatment procedures. All chemical substances on station will also have a current MSDS sheet available that may also help in the treatment of any first aid matters. All MSDS sheets are available from the Research Coordinator and online from any computer connected to the station network at <http://ccinfoweb.ccohs.ca/msds/search.html>. Poison Control should also be contacted regardless of the situation as they may also have first aid advice to help in the treatment of the victim.

***When dialing from BMSC dial 9- for an outside line**

| | |
|-----------------------------------|---|
| Emergency: | 911 |
| Provincial Poison Control Centre: | 1 800 567 5111 |
| First Aid Attendant | 250 728 3301 ext 222, ext 216 250 720 1433 |
| Research Coordinator | 255 |
| Bamfield Health Clinic | 250 728 3312 office 1800 676 4880 pager VHF Ch 82 |

General Health and Safety

General First Aid and Reporting

In case of emergency refer to “Medical Emergency” section earlier covered.

Primary response to first aid situations at the BMSC is undertaken by the Occupational Level 3 First Aid Attendants. In non-emergency situations the First Aid Attendant (FAA) should be contacted/consulted. In the absence of the primary FAA, the back-up FAA can be reached, and general first aid can be referred to the Bamfield Health Clinic nurse.

If a staff member has sustained a minor injury on the job, it is important that they report this injury and complete a First Aid Record. All BMSC First Aid kits on site contain First Aid Record forms, which must be filled out if First Aid Station is used. This ensures that information regarding the injury has been recorded and is available if in the future a submission of a WorkSafe BC Claim is necessary. First aid kits are mounted on a wall on each floor of all research, meeting and educational buildings, as well as in the dorms and lodge, generally near the stairwell or fire extinguisher. BMSC staff and users must familiarize themselves with the nearest first aid kits in their working environment. When supplies are used from one of these kits the enclosed supply sheet should be filled out to show what needs replacing.

If a staff member has sustained an injury that may require WorkSafe BC follow up (such as an injury referred to medical aid; an injury that may require time off; or an injury that could deteriorate; or chronic injuries such as back strains), The patient with assistance of the First Aid Attendant if necessary will complete a Form 7A – Workers report of injury. This will document all of the information regarding the injury, and will be available if in the future a submission of a WorkSafe BC Claim is necessary.

If a staff member has sustained an injury that requires medical attention (eg. from a Physician or the Bamfield Health Clinic Nurse), the Physician/ Nurse will bill WorkSafe BC for the services provided, thus initiating a WorkSafe BC claim on the behalf of the injured worker. The staff member will need to complete a Form 6A-Worker's Report of Injury.

The BMSC is required to complete a Form 7-Employer's Report of Injury (typically completed by the Administrative Assistant with assistance from the First Aid Attendant, or whoever filled out Form 7A). Forms must be submitted to WorkSafe BC (submission to the WorkSafe BC should be within 72hrs, 3 working days). The WorkSafe BC forms only apply to BC employees.

UVic Occupational Health and Safety Fax: 250 721 6359

BMSC Safety Officer and Level 3 First Aid attendant 250 728 3301 ext 222
University Program Coordinator and Alt Level 3 first aid attendant ext 216

In order to prevent a similar injury in your department, an Accident/Incident Investigation will be conducted (see below). This investigation will typically be arranged by the Safety Officer/Chair of the Safety Committee (or if absent by the Department Head).

Accident/ Incident Reporting

In order to prevent workplace accidents and injuries, the BMSC conducts an Incident/Accident Investigation. The purpose of the Incident Investigation is to

identify any corrective measures that can be implemented to prevent the recurrence of the incidents.

Incident Investigations are arranged by the Safety Officer/Chair of the Safety Committee (or if absent by the Department Head). The Incident Investigation involves the injured worker, an Employer Representative, an Employee Representative, and the Safety Officer/Chair of the Safety Committee (or if absent by the Department Head).

A UVic Incident Investigation Form is to be completed during the investigation, signed by both the Employer and Employee Representatives, and kept on file. A copy of this report will be forwarded to WorkSafe BC by the BMSC Safety Officer.

All incidents and accidents will be reviewed at the next Safety Committee meeting and any global issues can be discussed.

For some injuries, WorkSafe BC may also wish to conduct an On-Site visit. These visits are coordinated by the Director and/or the Chair of the Safety Committee, and may be arranged in conjunction with the Incident Investigation. Where applicable internal Accident/Incident investigations should also be carried out for non-employees (BMSC users)

The BMSC Site

All BMSC employees and users are advised to wear sturdy footwear around the site (where appropriate employees must wear protective footwear, such as steel toe boots). When moving around the site at night it is BMSC users and employees responsibility to carry and use a flash light.

General Field Work

The BMSC has an active field work program. Each member of the BMSC Community contemplating undertaking field work needs to take the following factors into consideration:

- i) the state of health and fitness of all participants;
- ii) the risks associated with the work performed
- iii) the procedures for responding to accidents, injuries, property and environmental damage
- iv) the availability of first aid care, supplies, and access to emergency medical treatment;
- v) the environmental impact of the work performed;
- vi) the provision of training for all participants in field work regarding the risks associated with such work and the applicable safety measures

- vii) The minimum and maximum numbers required in order to be safe at the field site
- viii) Communications with BMSC during the time in the field;
- ix) Following all BMSC Boat Policy regulations including always making sure that a check-in person is used and informed of any changes in the float plan.

Rogue Waves

One area of specific concern when in the field is rogue waves. These occur when waves in the open ocean overtake others and add together to create a larger than normal wave. These are seen on shore as larger surges that can catch people working in the intertidal area off guard.

Whenever working in wave exposed areas the following precautions should be taken:

- Never work alone
- Always wear a PFD
- Keep your eyes on the surge or have a lookout to spot large waves for you
- Having an accessible throw-buoy is recommended

If someone does get swept away by a rogue wave:

- Have someone keep their eyes on the person and point to them to maintain their location.
- Call BMSC and the Coast Guard using a VHF radio to inform them that someone has fallen into the water.
- Using a buoyant heaving line throw one end to them to assist them back to shore
- Do NOT jump in after them as it is very difficult to make a water rescue in cold, surging waters.
- If you are with others make sure that everyone stays back and are not in danger of falling.
- Once back on land the person may require treatment for hypothermia and other possible injuries. Be sure to have back up on the way from BMSC or the Coast Guard.

Workplace Hazardous Materials Information System (WHMIS)

WHMIS is an information system which requires that all employees must understand WHMIS and can apply WHMIS information. Workers exposed to hazardous materials may be at risk for many serious health problems. Some hazardous materials can also cause fires, explosions and environmental damage. The WHMIS provides Health and Safety information about workplace hazardous materials. Employers (Department Heads and those with a duty of care) must use this information as well as information specific to their workplace to educate and train workers to work safely with and near hazardous materials.

WHMIS has developed a classification system of six hazard classes to group chemicals with similar properties or hazards. Each class has a specific symbol to help people identify the hazard quickly. The classes are:

Class A - Compressed Gas

Class B - Flammable and Combustible Material

Division 1: Flammable Gas

Division 2: Flammable Liquid

Division 3: Combustible Liquid

Division 4: Flammable Solid

Division 5: Flammable Aerosol

Division 6: Reactive Flammable Material

Class C - Oxidizing Material

Class D - Poisonous and Infectious Material

Division 1: Materials causing immediate and serious toxic effects

Subdivision A: Very toxic material

Subdivision B: Toxic material

Division 2: Materials causing other toxic effects

Subdivision A: Very toxic material

Subdivision B: Toxic material

Division 3: Biohazardous Infection Material

Class E - Corrosive material

Class F - Dangerously reactive material

After a controlled product has been classified, the following three WHMIS elements are used to communicate Health and Safety information:

- 1) WHMIS labels: WHMIS labels on controlled products alert workers to the identity of the product, hazards and precautionary measures.
- 2) Materials Safety Data Sheets (MSDSs): Technical bulletins provide detailed hazard and precautionary information.
- 3) WHMIS education and training programs: The employer provides education and training for workers so they can work safely with and near controlled products. Workers need to know how WHMIS works, the hazards of controlled products in their workplace, and the safe procedures they must follow.

At the BMSC, all employees handling or working near hazardous materials must undertake WHMIS training and certification. This can be undertaken through UVic OHS, by contacting the Chair of the Safety Committee. It is the responsibility of Department Heads (and those with a duty of care) to ensure that

employees receive job-specific training appropriate to their work with hazardous materials.

Many Principle Investigators will have done WHMIS at their home university and are expected to follow the same guidelines while on site.

MSDS Location

It is the responsibility of the Research Coordinator to maintain a current MSDS inventory and that this is available to employees (this may be in the form of an easily accessible on-line inventory). On site at BMSC the MSDS hard copy sheets are stored in the Research Coordinators office and are accessible on loan from any computer connected to the station network. The subscription is through UVIC and is only available when on site. No passwords are required.

The MSDS sheets can also be accessed online at:
<http://ccinfoweb.ccohs.ca/msds/search.html>

It is the duty of Department Heads to co-ordinate with the Research coordinator with regards to WHMIS information and MSDS for any hazardous materials relating to their working environment. UVic OHS also maintains a MSDS data base from the Canadian Centre for Occupational Health and Safety.

***When dialing from BMSC dial 9- for an outside line**

Research Coordinator: *ext 255*

UVic OHS: (250) 721 6355 or 721 5462 or 721 8970

Transportation of Dangerous Goods (TDG)

"Transportation" in TDG refers to road, rail, sea, or air. "Dangerous Goods" refers to many products. A number of steps need to be taken in order to transport "Dangerous Goods" in compliance with TDG legislation. There are large fines imposed for non-compliance to TDG legislation. The most efficient method of facilitating the shipment of "Dangerous Goods" (which requires classification, packaging, labeling, and manifesting) is to contact the Research Coordinator at ext 255, at least two days prior to shipment. Any enquiries regarding packages involving radioactive materials should also be directed to the Research Coordinator.

Dangerous Goods Emergencies

Canutec (24hours) 613 966 6666 (emergencies)
613 992 4642 (info)

Boats

Copes, Raider and Skiffs

Boat policy: BMSC operates a Boat Policy (which acts a statutory boating safety document). All BMSC employees and users are required to adhere to the BMSC Boat Policy.

Boat check-out: BMSC requires that all boat operators receive a Boat Check-out and orientation to boating safety at BMSC. This includes practical boating competency, sail plan procedures, VHF radio use, and emergency/safety equipment and procedures.

Pleasure Craft Operators Card (PCOC): All boat operators must have a PCOC or equivalent acceptable certification (*acceptable to TC/CCG*). It is the operator's responsibility to obtain certification. PCOC Certification can be obtained at the BMSC.

Alta and Barkley Star

For safety information on the Alta and Barkley Star BMSC employees and users should consult with the BMSC Boat Policy, relevant safety manuals and the 1st skipper (John Richards).

Fueling Station

All fuelling done on site is to be done only by those who are trained and approved to use the equipment. This is usually the two skippers.

If you discover a spill:

- Cover the fuel with a hazmat (absorbent mats found in spill response kit at the fueling station and in marked cabinet inside boat shed)
- Do not place in a dumpster, contact the Safety Officer or the Research Coordinator to get directions on proper disposal
- Contact a maintenance worker and the Safety Office to let them know what happened and to assist in the clean-up.

Diving and Snorkeling

For diving and snorkeling information BMSC employees and users must consult with the Scientific Diving Coordinator. Any snorkeling done with BMSC equipment or from the BMSC docks needs to be discussed and approved by the Diving and Safety Officer.

Building Safety

BMSC has numerous buildings that staff and visitors use on a regular basis. Each building will have unique facilities and emergency plans but there are some general safety items that all users should be aware of. Below is a list of safety items that all members of BMSC should be familiar with and actively look for evacuation floor plans located in the main hall on each floor of all the buildings in which they work. If they are problems with any item listed here or otherwise the Safety Officer and the Head of Maintenance should be contacted.

- Evacuation paths should be free of obstacles and clutter
- Fire escape doors should not be locked
- Broken glass should be kept in a Sharps container and properly disposed of
- If any ceiling panels are not fitted in the room should not be worked in until they are replaced
- Any electrical wiring that is loose and unconnected should be reported immediately
- Stairways are to be kept clear at all times

Electrical Safety **(including all digging)**

The BMSC has a “Lock out Policy” and BMSC Lock-out Procedures relating to electrical safety. These are available from the Head Electrician. Before digging or drilling anywhere on the BMSC property you are required to contact the BMSC electrician to determine the location of underground wires.

Head Electrician ext 248

Safety Orientation

WorkSafe BC stipulates that employers must provide the new or transferred employees with an induction. At the BMSC this orientation is the responsibility of the Department Head or Supervisor and includes:

- Familiarization with safety and health procedures;
- Location of first aid facilities and first aid reporting;
- Emergency procedures;
- Procedures on reporting of incidents/accidents;
- Review of existing hazards and any known problems;
- Hazard reporting procedures; and
- Supervisors' expectations.

The following tour is given to University Programs students, TA's and Instructors (instructors and TAs must attend) at the beginning of each of the three summer blocks and Fall Program. A University Programs specific Safety Manual is provided and available by The Diving and Safety Officer and the University Program Coordinator. The same tour is given to PIs and grad students conducting research on site by the Research Coordinator. This tour includes:

- Main Building
- Foreshore
- COTC Building
- Ecophysiology Building
- Boats Shop
- Dive Shed
- Maintenance Shop
- Location of safety equipment (Fire extinguishers, eye wash stations, first aid kits, lab coats)
- Chemical Spill Response Procedures
- Animal Care Procedures
- Safety on station, in laboratories, and appropriate behaviour

Safety Officer:

- Safety at BMSC
- First aid attendant
- Medical conditions
- First Aid kits and telephones
- Red Cross
- Medical emergency procedures
- Records/ report injuries
- Fire/earthquake procedures- fire alarms, extinguishers, Emergency Assembly
- Area, 911
- Site safety
- General foreshore safety
- Boating safety at BMSC
- Safety kits
- VHF radio usage

For all Public Education users the following tour is given:

- Lab locations
- Emergency contacts
- Wildlife safety in regards to bears and cougars
- Kitchen protocol
- Boat and dock safety
- Off limit areas of research
- Accident reporting

Cougars and Bears:

The best advice you can give is to travel in groups and make noise as you travel. Both animals are characteristically shy of adult-sized humans and would rather turn tail than attack. The most important thing to do in any encounter is to stay calm.

Cougars and Bears:

We are in cougar and bear country and while the probability is small they should know how to deal with the situation. Individuals should travel in groups making a moderate amount of noise as they travel after hours between dorms and cabins etc.

1. Cougars – Stay calm and keep the cougar in view.

- Pick up children immediately.
- Back away slowly, ensuring that the animal has a clear avenue of escape.
- Make yourself look as large as possible. Never run or turn your back on a cougar.

If the cat shows intense interest or follows you,

- respond aggressively.
- Maintain eye contact with the cat, show your teeth and make loud noises.
- Arm yourself with rocks or sticks as weapons.
- Crouch down as little as possible when picking things up off the ground.
- If the cougar attacks, fight back.
- Keep the animal in front of you at all times.
- Convince the cougar you are a threat, not prey.
- Use anything you can as a weapon.
- Focus your attack on the cougar's face and eyes.

2. Black bears – Stay calm and keep the animal in view, but avoid direct eye contact.

- The bear may interpret it as a sign of aggression.
- Back away slowly if you can.
- Never run from a bear unless you know you can reach safety.
- Always fight back.
- Jump up and down, wave your arms and yell.
- Try to look as large as possible.
- Never play dead – it makes you easier prey.
- Remember that black bears and small grizzlies can climb trees, so stay on the ground.

Please read the brochures available regarding bear and cougar safety.

You should notify other staff members and the Safety Officer immediately of any encounter

BMSC Employee Commitment

Once employee has read and understood the BMSC General Safety Manual, They are to sign and hand in this document to BMSC administration office.

The following BMSC employee has completed the following safety tasks

1. Read and understands the BMSC General Safety Manual
2. Read and understands their area specific safety manual
3. Has had a safety induction with their department head.

Staff Member: _____

Signature: _____

Date: _____

Department Head: _____

Signature: _____

Date: _____

Director: _____

Signature: _____

Date: _____