III. EMERGENCY PLANNING AND PROCEDURES

A. EMERGENCY PLANNING

Effective emergency response requires pre-emergency planning. It is the responsibility of each faculty member to evaluate the hazards of the experiments being performed, to determine appropriate emergency procedures, and to make all employees and students aware of those procedures. A list of emergency telephone numbers is included as Appendix III-A.

Emergency Equipment

Easy access to emergency equipment is essential to quick response. Emergency equipment (e.g., fire extinguishers, eyewash stations, drench showers) should never be blocked. Faculty, with the assistance of the Chemical Hygiene Officer, should determine the appropriate extinguishers for their laboratories (see Chapter IV). Aisle space must also be maintained to ensure that the equipment can be reached. A quick check should be made of the laboratory each time it is entered to ensure that emergency equipment is accessible. Any obstructions should be removed immediately. If any equipment is missing or damaged, it should be reported immediately to the Department Chair or Office.

In laboratory courses, the instructor must demonstrate the use of fire extinguishers, safety showers, and eyewash stations at the beginning of each semester. Activation of the safety equipment is not required during demonstration.

Laboratory door windows to the hallway should not be covered unless necessary to block light for an experimental procedure. Visual contact between the labs and the hallway is an important safety measure.

Emergency Exits and Evacuation Plans

Ready access to the exit(s) must be maintained in each laboratory. Remember that by blocking any exit in your laboratory, you may be blocking a necessary exit in the adjacent laboratory. You must consult the Chemical Hygiene Officer before blocking any exit. Aisle space must also be maintained to ensure ready access to exits.

Exit signs designating all exits from the building and hallways are equipped with emergency lighting. These lights are on auxiliary power in the event of a power failure. Instructors must inform students of the location of emergency exits and of evacuation routes and assembly areas (see Section C below) at the beginning of each semester.

The Chemical Hygiene Officer conducts evacuation drills at least once a year. If any faculty member is conducting research that could be impacted by an evacuation drill, the faculty member should notify the Chemical Hygiene Officer regarding critical time periods for that research.

III. EMERGENCY PLANNING AND PROCEDURES

Emergency Communication

Panic alarm buttons are located in Carr and Kendade laboratories, are some other areas of the science complex. The alarm is a blue box with a push button. Pushing the button sends an alarm alerting Campus Police that there is an emergency situation in that area, and a Campus Police Officer will be dispatched. If a hazardous condition exists, leave the room after pushing the alarm. If no hazardous condition exists, await Campus Police response for assistance. These alarm stations should not be used as a substitute for the fire alarm pull boxes, as they will not signal for building evacuation and a delay in Fire Department response would result.

Emergency fire alarm pull boxes are located in all hallways. These boxes sound an alarm throughout the building signaling evacuation, and directly alert Campus Police. The emergency number, 1911 (cell phone: 413-538-2304), should also be called from a telephone a safe distance from the emergency to provide Campus Police with details.

The campus emergency number, 1911 (cell phone: 413-538-2304), is posted on all phones. A sign indicating whom to contact for information on the chemicals and hazards of a particular laboratory, in the event of an emergency, is posted on every laboratory door. Departments are responsible for keeping signs up-to-date. Additional signs are available from the Chemical Hygiene Officer.

Campus Police maintains a list of emergency contact information for critical locations including all areas with alarmed equipment. Campus Police requests updated information annually, any additional changes should be provided to Campus Police by the departments.

At the beginning of each semester instructors inform students of the location of emergency alarm boxes and telephones and that immediate evacuation is mandatory upon hearing the alarm.

Chemical Emergencies

Faculty members should evaluate the hazards and quantities of the chemicals in use in their laboratories to determine what level of response would be required in the event of a chemical release. Particular attention should be devoted to procedures for releases of substances defined as Acute Toxins (Chapter V(h)) and reactive chemicals (Chapter V(e)). All employees and students must be informed of any emergencies that would require immediate evacuation of the room or building. The Chemical Hygiene Officer can provide assistance in evaluating specific hazards and appropriate emergency response procedures upon request.

Possible incidents are classified into two categories: emergency responses or incidental releases. An **emergency response** is an occurrence that results in, or is likely to result in, an uncontrolled release of hazardous materials that requires a response effort by employees outside the release area or other designated responders (e.g., Fire Department, clean-up contractor). Situations generally resulting in emergency responses include:

- the release requires evacuations of the area
- the release poses, or has the potential to pose, conditions that are immediately dangerous to life and health
- the release poses a serious threat of fire or explosion
- the release requires immediate attention because of imminent danger
- the release may cause high levels of exposure to toxic substances
- there is uncertainty that those working in the area can safety handle the hazard
- the situation is unclear or data is lacking on important factors.

An **incidental release** of hazardous materials occurs when (1) the substance can be absorbed, neutralized, or otherwise controlled at the time of release by those in the immediate release area or other laboratory personnel, or (2) a release where there is no potential safety or health hazard.

The Chemical Hygiene Officer can provide assistance in evaluating specific hazards and appropriate emergency response procedures upon request. Section E describes response procedures for chemical releases.

Utility Loss

Each department should keep up-to-date procedures to be followed in the event of power or water loss (e.g., equipment shut-off). In the event of power loss, no operations releasing hazardous vapors should be conducted as ventilation is not adequate. In the event of water loss, no hazardous chemicals should be used in the laboratory as emergency eyewashes and showers are not available.

Hoods in Carr and Kendade are connected to the emergency power system. If the power is off, the emergency power system will maintain enough flow in the hoods to maintain a negative pressure, preventing contaminants from escaping into the room. In the event of a power failure (hoods will go into alarm), all chemical operations should be shut down, the hood sash(es) closed, and the lab evacuated.

Special Needs

Faculty should discuss evacuation procedures with all mobility-impaired persons in the laboratory to determine their needs for assistance.

B. EMERGENCY PROCEDURES—BASIC STEPS

The first priority in emergency response is the protection of life and health. The following four basic steps apply to all emergency situations. Additional procedures for specific situations follow.

1. Make sure everyone in the immediate vicinity is aware of the problem.

2. Contain the emergency if it can be done safely.

3. Pull the alarm to evacuate the building if the emergency cannot be contained or there is any doubt as to the severity of the situation.

4. Summon Aid—Dial 1911 (cell phone: 413-538-2304) for all emergencies.

C. FIRES

Many small laboratory fires can be controlled by removing the source of ignition, dousing with water (**do not apply water to chemical fires**), or smothering the flame with a watch glass or beaker to eliminate the oxygen needed to sustain the fire. If the fire cannot be extinguished with such immediate actions or those actions are not successful, the following actions should be taken.

1. If the fire is in a hood, close the sash.

2. If your clothing or hair is on fire: drop to the floor and roll or use the deluge shower to extinguish the flames.

3. Decide if the fire can be safely fought with a fire extinguisher based on the guidelines listed below.

4. Pull the alarm to signal evacuation.

5. Evacuate the building.

6. Assist Campus Police and the Fire Department by providing them with information on the exact location of the fire, hazards in the area, and location of emergency shutoffs.

Evacuation

Upon hearing the fire alarm, laboratory occupants should: shut off ignition sources, close the laboratory door when everyone is out, and immediately exit the building using the nearest exit. All members of a class or lab should exit from the same door. Everyone present in the building at the time of the alarm should assemble in class groups at the designated assembly areas listed below.

III. EMERGENCY PLANNING AND PROCEDURES

Campus Police may direct assembled groups to move to others areas to maintain a safe distance from the buildings and emergency vehicles. Faculty members should confirm that all students in their classes are outside. No one should leave the area until specifically told to by Campus Police.

Building	Assembly Area
Clapp	Library East Entrance
Kendade	Library East Entrance
Shattuck	Dwight South Entrance
Carr	Reese West Entrance
Cleveland	Reese West Entrance
Reese	Carr Loading Dock Entrance

Using Fire Extinguishers

Fire extinguishers are in the laboratory to assist in the evacuation of laboratory occupants. They should be used to fight a fire only if **ALL** of the following are true.

One: Someone has been sent to pull the alarm for evacuation and to call Campus Police at 1911 (cell phone: 413-538-2304).

Two: The fire is small and confined to the immediate area where it started (e.g., in a wastebasket).

Three: There are no flammable chemicals or other combustible materials near the fire area.

Four: You can fight the fire while maintaining a safe escape route.

Five: You have had training in the use of the extinguisher and are confident that you can operate it effectively.

Gas Shut-Offs

All laboratories in Carr and Kendade are equipped with gas shutoffs. In the event of a fire in the laboratory, the faculty member or instructor should shut off the gas in the room. There are two types, lever handles and push buttons. Lever handles may be both turned on and off by laboratory personnel. Push button shut-offs require Facilities Management service to restart gas flow.

D. PERSONAL INJURY

In the event that someone is injured take the following actions. Additional procedures for responding to chemical contamination are listed below.

1. Seek the assistance of a faculty or staff member.

2. Rescue the victim from life-threatening danger if it can be done safely.

3. Dial 1911 to notify Campus Police (cell phone: 413-538-2304), or push the blue panic alarm button if available. All Campus Police officers have first aid training.

4. For minor injuries treat with local first aid supplies and call Campus Police for transport to the College Health Center. A student with minor injuries may walk to the Health Center if accompanied. During the summer and semester break when the Health Center is closed, call Campus Police; they will arrange transport to a medical facility.

5. An injured/contaminated student going to the Health Center should be accompanied by a teaching assistant or other person with knowledge of the incident. The Health Center should be called to inform them that the student is coming and the nature of the injury. If a chemical is involved documentation (e.g., MSDS, lab handout) of the chemical name should be brought. If the MSDS is not available to go with the student, it should be faxed to the Health Center (538-2353) as soon as possible.

6. Serious injuries and faculty/staff injuries should be taken directly to the Holyoke Medical Center. Campus Police will request an ambulance when needed.

7. Contact the supervising faculty or staff member.

8. Clean up or control any hazardous condition that caused or was caused by the accident if it can be done safely.

Chemical Contamination

In the event of **eye contamination** take the following action.

1. Go immediately to an eyewash station and flush the eye for at least **15 minutes** (the 15 minute flushing time is essential to prevent damage to the eyes).

2. The eyes should be held open (remove contact lenses).

3. Call Campus Police for assistance at ext. 1911 (cell phone: 413-538-2304), or push the blue panic alarm button if available.

4. Medical evaluation is required for all cases of eye contamination.

In the event of **skin or clothing contamination** take the following action.

1. Use the safety shower, hose or laboratory sink to thoroughly flush the area. (In the event that non-emergency washing is advisable, the shower room, Carr LL13, can be used. Someone must remain in the shower room with the person.)

2. Remove all contaminated clothing. If the head has been contaminated flush well prior to removing safety goggles so that contaminants are not flushed into the eyes.

3. Call Campus Police at ext. 1911 (cell phone: 413-538-2304) to report the incident and receive assistance.

4. In cases of visible tissue damage, contamination of a large area, or contamination with an acutely toxic substance, medical evaluation is required. The area must be thoroughly flushed prior to transport. Campus Police will transport or arrange for transport to a health facility. In all other cases, contact Campus Police and call the Health Center at ext. 2121, or the Holyoke Medical Center Emergency Room when the Health Center is not open, for advice on the need for immediate medical treatment.

Accident Reporting

All accidents, however slight, must be reported immediately to the supervising faculty member or, in the case of faculty accidents, the department chair. For non-employees, A F*irst Report of Accident* form (see Appendix III-B) must be completed as soon as possible. Copies of the form are available on the web at: https://www.mtholyoke.edu/sites/default/files/ehs/docs/iii-appendix-b.pdf. Employee accidents must be reported using the forms available at http://www.mtholyoke.edu/hr/workerscomp.html.

E. CHEMICAL RELEASES

While most chemical releases in the laboratory are incidental releases (as described in Section A) and can be controlled by laboratory ventilation and cleaned up by laboratory personnel with minimal risk, some releases can pose a fire hazard or health hazard to lab personnel and other occupants of the building. The following procedures for notification and spill clean-up should be followed to ensure the safety of all building occupants and minimize potential property damage.

Release Notification

1. Make everyone in the laboratory aware of the release and instruct them to stay away from the area, or, if there is a fire or health threat, to leave the laboratory.

2. Notify the supervising faculty member or another department faculty or staff member.

3. If there is a threat of fire or an immediate or significant long term health hazard, pull the fire alarm to evacuate the building. This will automatically alert Campus Police and the Fire Department.

4. If the release is not confined to the laboratory in which it occurs (e.g., vapor release to the hallway), or there is any doubt regarding a potential fire or health threat, call Campus Police (ext. 1911 (from a cell phone: 413-538-2304)) and describe the incident.

Hazard Assessment and Evacuation

1. As stated above, if laboratory personnel believe there is a threat of fire or an immediate or significant long term health hazard they should initiate evacuation by pulling the fire alarm.

2. If the release is contained in a small area within a laboratory and there is no threat of a fire or immediate or significant long term health hazard, the faculty member will determine if the release is an incidental release or an emergency response (as described in Section A). If the release is an incidental release, the faculty member will proceed to clean-up the material. If the faculty member determines that the release is an emergency, call Campus Police (ext. 1911 (from a cell phone: 413-538-2304)).

3. If immediate evacuation did not occur and there is any doubt regarding a potential fire or health threat, Campus Police will evacuate the building until the potential hazard can be assessed. This can be done by activating the building fire alarm or, if there is no immediate fire or health threat, by Campus Police officers clearing the building.

4. All building occupants must evacuate the building immediately upon hearing the fire alarm or upon being told to leave by Campus Police. Occupants may not reenter the building until the Fire Department or Campus Police has authorized reentry.

5. Campus Police will meet with the following people, if they are available, to assess the potential hazard:

- responsible faculty member
- Department Chair
- Chemical Hygiene Officer
- Facilities Management Representative (if building systems involved)
- other Department representatives within the building

If evacuation has occurred, these individuals should meet the ranking Campus Police officer on the road side in front of the Carr/Clapp connector.

6. In consultation with the above individuals, Campus Police will determine:

- if the spill is an incidental release (as described in Section A) and can be cleaned up by laboratory personnel,
- if the spill is an emergency response (as described in Section A) and outside advice or assistance is needed,
- if additional evacuation is necessary,
- what additional remedial actions are necessary, and
- when the building can be reoccupied.

7. If the building is to remain closed, all exterior doors will be locked and signs posted indicating that the building is closed.

Spill Clean-Up

If the release is an incidental release and can be cleaned up by laboratory personnel follow the procedure listed below. Spill response should be done under the immediate supervision of the faculty member responsible for the laboratory or another faculty or staff member.

1. Assign specific tasks and keep everyone else away from the area.

2. Obtain the supplies and equipment needed.

3. All persons involved in spill clean up must wear protective equipment. The minimum level of protective equipment is

- lab coat
- splash goggles
- nitrile or other chemical resistant gloves (do not use disposable latex gloves)

4. Contain the spilled material to as small an area as possible.

5. Proceed to clean-up the spilled material using absorbent, neutralizers, etc.. Only use neutralizers if you have been specifically trained in proper application techniques.

6. Collect all spilled material and contaminated material for proper disposal (see Chapter VIII).

If the spill is an emergency response and outside assistance is needed, Campus Police or Environmental Health and Safety will contact outside resources for assistance. Sources of assistance include:

Fire Department (if there is a fire or immediate health threat)

Triumvirate Environmental, Inc. (800-966-9282)

Spill Control Supplies

Spill control supplies for use in cleaning up spills that can be controlled by laboratory personnel are located in the Carr LL11, Carr 1st floor corridor, Clapp 207and in Psychology/ Education room 128. Supplies in these locations include:

- nitrile gloves
- tyvek protective suits
- chemical splash goggles
- vapor barrier absorbent pads
- acid, base and solvent neutralizers
- mercury clean-up powder
- disposal bags

Additional spill control supplies available in the hazardous waste storage area include:

- 4" absorbent socks/booms
- absorbent pillows and pads
- acid/base neutralizers
- spill sign
- gloves/goggles/tyvek suits
- pH paper
- repair putty stick
- disposal bags

Mercury Spills

Metallic mercury is toxic by skin absorption, inhalation and ingestion. Long-term exposure to low concentrations of vapor is harmful. Particular care should be taken in cleaning up mercury spills to ensure that the area is totally decontaminated. For cleaning up small spills of mercury (e.g., broken thermometers) take the following actions:

1. Provide maximum ventilation in the contaminated area.

2. If the mercury is spilled in an oven or other heated device, turn off the unit, evacuate the laboratory and call Campus Police.

3. Avoid contamination of shoes or other items in the area.

4. Never sweep with a broom, as this breaks up the droplets and results in increased vaporization.

5. Push pools of mercury together.

6. Pick up the pools with a medicine dropper, mercury pump, or pipette with a closed bulb and transfer into a plastic bottle.

7. Use mercury clean-up powder to form an amalgam of the residual that can then be picked up.

8. All mercury and clean-up debris must be disposed of as hazardous waste.

In the event of a large spill of mercury, call Campus Police. Mercury contaminated debris must be handled as hazardous waste as described in Chapter XI(a).

F. VENTILATION

Laboratories and other areas using or storing chemicals must be evacuated when the ventilation in the room is not working.

Hoods in Carr and Kendade are equipped with alarms which signal when face velocity is less than 100 lfm, or, for hoods with horizontal sashes, when the sash height is raised above 15 inches. Chemical operations should not be conducted in a hood which is alarming or on which the alarm has been muted.

For those hoods with alarms, a hood should never be used when the hood is in alarm. If the alarm does not stop when the sash is lowered below 15 inches, close down all chemical operations, lower the sash and report the problem to the Department Chair or Office, who will in turn call Facilities Management. Hoods without alarms should not be used when a Kimwipe test (see Section IV) indicated low flow or the hood has been posted as having inadequate flow.

If all hood alarms in a room go off simultaneously, close down all chemical operations, lower the sash, exit the room and report the problem to the Department Chair or Office.

If the power is off, the emergency power system will maintain enough flow in the hoods to maintain a negative pressure, preventing contaminants from escaping into the room. Hoods should

never be used when on emergency power (all hoods will be in alarm), and all sashes should be kept closed, and the room should be evacuated.

G. OXYGEN SENSORS

Several rooms are equipped with portable oxygen sensors and present and audible and visual alarm if oxygen levels fall below 19.5% or increase to 23.5%.

- Carr NMR rooms (LL02, LL05A)
- Clapp 5B
- Shattuck G03

These rooms contain cryogens that could pose an asphyxiation hazard in the event of an unplanned release.

If the alarm sounds and there are no visual signs of evaporating helium and nitrogen gases (e.g., plume in the room and there has been no indication that a release is likely):

(1) Evacuate the room immediately.
(2) Close the door when everyone is out.
(3) Report alarm condition to department faculty or staff.

Department faculty or staff will assess the situation and either use a second monitor, if available, to slowly enter the room to determine if an alarm condition truly exists, or call Campus Police to have oxygen levels independently checked with the Facilities Management confined space meter. Campus Police will contact Facilities Management and Environmental Health and Safety for independent monitoring.

If the alarm sounds and there are signs that a release may be occurring (noise, visual signs of evaporating gas escaping):

(1) Evacuate the room immediately.
(2) Close the door when everyone is out.
(3) Report alarm condition to department faculty or staff.
(4) Call Campus Police.

Campus Police will contact Facilities Management and Environmental Health and Safety to have oxygen levels independently checked with the Facilities Management confined space meter.

If there is a medical emergency, call Campus Police who will in turn call the Fire Department.

APPENDIX III – A

EMERGENCY TELEPHONE NUMBERS

III. EMERGENCY PLANNING AND PROCEDURES

EMERGENCY TELEPHONE NUMBERS

MHC Emergency Number	1911 from off campus or a cell phone 413-538-2304
Campus Police (non-emergency)	2304
Health Center	2121 fax 2352
Facilities Management	2012
Chemical Hygiene Officer, Nancy Apple, Environmental Health & Safety	2529
Holyoke Medical Center Emergency Room	413-534-2507
Holyoke Medical Center Occupational Health	413-534-2546
MA Poison Control Center	800-222-1222

APPENDIX III – B

FIRST REPORT OF ACCIDENT FORM

Mount Holyoke College -- FIRST REPORT OF ACCIDENT

[Non-work related injuries]*

Incident Information: **Date**: **Time**: **Location**:

Who was injured and/or suffered loss? (Name, age, address, telephone)

_____

_____

Was this individual: Faculty/Staff ☐ **Student** ☐ **Campus Visitor** ☐

***[Work related injuries MUST be reported on DIA form 101 available from Human Resources, x2503.]**

What happened? _____

_____

_____

_____

_____

Was medical treatment provided? Yes No By whom:_____

Is there an ongoing hazard? If so, has it been reported or mitigated? _____

_____

_____

_____

_____

_____

Who is making out this report? _____

Name Telephone

_____

Address/Office City State Zip

Who else saw it happen? (Witnesses: Name, address, telephone)

_____

_____

_____

_____ _____

Date Report Filled-out Signature of Individual Filling-out Report

In case of medical emergency or other need of immediate assistance, call CAMPUS POLICE 1-911 (cell phone or off-campus: 413-538-2304).

Fill out this form as completely as you are able and promptly send to:

Mount Holyoke College, Environmental Health, Safety & Sustainability, 50 College Street, South Hadley, MA 01075

Revised 2/2009 Thank You!