

## Section 2 -- Emergency Planning and Procedures

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Accidents or emergencies may be non-laboratory related (e.g., illness, fainting, falling or other reasons), or may involve laboratory materials such as chemical spills, explosions, cuts or burns. When problems are detected or a request is made, a Campus Police Officer will respond, reporting back to the Chief of Campus Police and the Environmental Health and Safety Office.

### Special Needs

Faculty and instructors should discuss evacuation procedures with all mobility-impaired persons in the laboratory to determine their needs for assistance at the beginning of each semester. The Disabilities Services Coordinator (x5423) should be included in such discussions as needed.

### **2.1 WHAT TO DO IN THE EVENT OF AN ACCIDENT OR EMERGENCY**

The first priority in an emergency response is the protection of life and health. **The following basic steps apply to ALL emergency situations:**

1. Make sure everyone in the immediate vicinity is aware of the problem and stays a safe distance away from the incident.
2. Contain the emergency if it can be done safely without causing harm to you.
3. Pull the box alarm to evacuate the building if the emergency cannot be contained or if there is any doubt as to the severity of the situation.
4. Call the Emergency dispatch at extension 5555, or Campus Police at extension 5424. These numbers are staffed 24 hours a day, 7 days a week.
5. After the event, the Lab Manager and EH&S will investigate the incident and complete a report for the CSC Safety Committee (Appendix 2-A).

<b>EMERGENCY TELEPHONE NUMBERS</b>
<b>EMERGENCY/EMT DISPATCH</b> <b>x5555</b> from cell: (413) 559-5555
<b>Campus Police x5424</b>
<b>Nancy Apple, EH&amp;S Director, x6620</b> <b>Lori Smith, EH&amp;S Assistant Director, x6193</b>
<b>Chelvanaya "Naya" Gabriel, Lab Manager, x5386</b>

## Section 2 -- Emergency Planning and Procedures

---

Hampshire College's emergency responders, including EMTs, Campus Police and EH&S, should be contacted immediately when an accident, unmanageable chemical spill, or other serious problem occurs.

Faculty and staff must notify the Lab Manager of all spills and accidents. This notification is important to assure that people are properly treated and that the spill is properly cleaned up. The Lab Manager will contact Environmental Health and Safety if assistance is needed and to complete incident/spill reports.

### 2.2 WHAT TO DO IN THE EVENT OF A CHEMICAL RELEASE

#### 2.2.1 Emergency Planning

Faculty members should evaluate the hazards associated with and the quantities of the hazardous chemicals in use in their laboratories to determine what level of response is required in the event of a hazardous chemical spill. Particular attention should be given to procedures for releases of substances defined as Reactive (Section 5.3) or Acute Toxins (Section 5.6). All people in the area must be informed of any emergencies that would require immediate evacuation of the area or building.

#### 2.2.2 Classifying Releases

Possible incidents should be classified into two categories: emergency responses and incidental releases. An **emergency response** is an occurrence that results, or is likely to result, in an uncontrolled release of hazardous materials that requires a response effort by employees outside the immediate release area (e.g., Campus Police) or other designated responders (e.g., fire department, contractor). Situations generally resulting in emergency responses include situations when:

- the release requires evacuation 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 may cause high levels of exposure to toxic substances
- there is uncertainty that those working in the area can safely handle the hazard
- the situation is unclear or information is not available to assess the hazard

Responses to **incidental releases** of hazardous materials are when (1) the substance can be absorbed, neutralized, or otherwise controlled at the time of release by those in the immediate area, or (2) there is no potential safety or health hazard, are not considered emergency releases.

#### 2.2.3 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.

## Section 2 -- Emergency Planning and Procedures

---

2. Notify the supervising faculty member, or other faculty member, and the Lab Manager.
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. 5555) and describe the incident.

### **2.2.4 Hazard Assessment and Evacuation**

1. 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 and Lab Manger will determine if the release is an incidental release or an emergency response. If the release is an incidental release, the faculty member or Lab Manager will proceed to clean-up the material. If the faculty member determines that the release is an emergency, call Campus Police (ext. 5555). Campus Police will call Environmental Health & Safety.
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. Environmental Health & Safety will meet with the following people, if they are available, to assess the potential hazard:
  - responsible faculty member
  - Dean of the School of Natural Science
  - Campus Police
  - Lab Manager
  - Facilities and Grounds Representative (if building systems involved)
  - other Department representatives within the building
6. In consultation with the above individuals, Environmental Health & Safety will determine:
  - if the spill is an incidental release and can be cleaned up by laboratory personnel,
  - if the spill is an emergency response and outside advice or assistance is needed,

## Section 2 -- Emergency Planning and Procedures

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- 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.

### 2.2.5 Emergency Response

Under the following circumstances, or other conditions determined to be an emergency response by the hazard assessment, **evacuate the building and call Campus Police at x5555**.

- there is an immediate fire or health threat
- individuals are experiencing exposure symptoms
- a large quantity of flammable or toxic material is involved
- a reactive is involved
- an acute toxin is involved

Provide as much information about the spill as possible including: specific location, the name of the spilled chemical if known, or if it can be determined without risking additional exposure, and the estimated quantity spilled.

### 2.2.6 Incidental Release Clean-up

Chemical spills are the most common laboratory emergency. In most cases, spills are incidental releases that can be cleaned up by laboratory personnel with minimal risk. Incidental release response should be done under the immediate supervision of the faculty member in charge of the laboratory, another faculty member, or the Lab Manager. Before proceeding to clean up any spill, **ALL** of the following three conditions must be true:

One: You know the physical (e.g., fire) and health (e.g., corrosive) hazards of the material spilled.

Two: You are confident that you have the training or expertise necessary to proceed safely.

Three: You have the necessary supplies and equipment to proceed safely.

**If the spill is an incidental release and can be cleaned up by or under the supervision of the faculty member or Lab Manager:**

1. Assign specific tasks and keep everyone else away from the area.
2. Obtain the supplies and equipment needed from the laboratory or spill control supplies.
3. Wear protective equipment, at a minimum:

## Section 2 -- Emergency Planning and Procedures

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- lab coat
  - splash goggles
  - nitrile or other appropriate 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 neutralizer if you have been trained in proper application techniques.
  6. Collect the spilled material and contaminated material for proper disposal (see Section 6.5).

### 2.2.7 Nitrogen release in NMR Room

The NMR room (Cole B-16) is equipped with a portable oxygen sensor that presents an audible and visual alarm if oxygen levels fall to 19.5% or increase to 23.5%. Procedures for alarm response are posted in the room and included in Appendix 2-C.

#### **If advice or assistance is needed, contact:**

1. the Lab Manager, or, if not available,
2. extension 6620 or 6193 to notify Environmental Health and Safety (or call Campus Police to have EH&S contacted).

### 2.3 WHAT TO DO IN THE EVENT OF AN INJURY, CHEMICAL EXPOSURE OR BURN

Rescue the victim from life-threatening danger *only if it can be done safely*. Rescuing and first aid should only be administered by people trained and certified in first aid and/or CPR.

**First aid kits** are available at the south and north ends of each floor in Cole Science Center. These kits contain: disposable gloves, band-aids, and gauze pads. (The kits do not contain topical creams, liquids or ointments as these can cause further discomfort and/or hinder medical treatment). Faculty are responsible for having portable first aid kits for use in the field at locations where medical services are not readily available. The Lab Manager is responsible for stocking and maintaining the kits.

#### 2.3.1 Chemical Exposure

**Emergency eyewashes and showers** are located at the south and north ends of the 2nd, and 3rd floors, and in the basement. **In the event of a chemical spill to the body take the following action:**

1. Call for assistance and to notify others.

## Section 2 -- Emergency Planning and Procedures

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2. Move everyone away from the site of the accident.
3. Lead the affected person to:
  - a. the sink if the spill is to a small area such as the hand or forearm and can be adequately flushed by the sink faucet water, or
  - b. the emergency shower if the spill cannot be flushed adequately by a sink faucet, and turn on by pulling the handle.
4. Have the person stay under the shower until medical assistance arrives or for 15 minutes.
5. Have someone call extension 5555 to begin the emergency response system.
6. Remove all contaminated and potentially affected clothing while under the shower. Use a clean lab coat or a blanket as a wrap.

### **In the event of a splash to the eyes take the following action:**

1. Immediately lead the person to the eyewash.
2. Remove contact lenses if they are being worn.
3. Lower their head to place their eyes in the stream of the eyewash. It may be necessary to aid the victim in holding their eyes open.
4. Have someone call extension 5555 to activate the emergency response system.
5. Do not rub the eyes.
6. Flush the eyes until medical assistance arrives or for a minimum of 15 minutes.
7. Go to Health Services or other medical facility to have the potential injury evaluated.

Any person assisting the injured person must wear appropriate gloves and eye protection.

### **2.3.2 Clothing Fires**

If a person's hair or clothing catches on fire, have the victim:

- **STOP** - do not run; this will only enhance the fire
- **DROP** - to the floor and cover the face with the hands
- **ROLL** - to put out the flames

Emergency showers or fire blankets may also be used. **Call extension 5555** to activate the Emergency response system and report the accident to the Department of Campus Police.

### **2.3.3 Cuts and Burns**

Minor cuts should be flushed and treated with first aid supplies. If there is significant bleeding, chemical contamination, possible foreign material such as glass inside the cut, or questions as to the severity of the injury, call Campus Police (x5555/x5424) for assistance.

## **2.4 WHAT TO DO IN THE EVENT OF A FIRE**

In the event of **any** fire, worry about personnel safety first:

## Section 2 -- Emergency Planning and Procedures

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- pull the fire alarm immediately
- call Campus Police (extension 5555 or 5424) and give details about the fire
- evacuate the area and close any doors to the area

Emergency alarm (fire) pull boxes are located in the hallways on each floor of the CSC. These boxes sound an alarm throughout the building and in the Campus Police Office, signaling the need for evacuation. Campus Police will call the Amherst Fire Department.

### 2.4.1 Fire Extinguishers

#### Using Fire Extinguishers

Fire extinguishers are in the laboratory to assist in the evacuation of laboratory occupants.

**In no case should a student use an extinguisher unless they cannot escape the area.**

Faculty and staff should only use an extinguisher to fight a fire (to put out a fire vs. assisting in evacuation) only if **ALL** of the following are true:

1. Someone has been sent to pull the alarm for evacuation and to call Campus Police at ext. 5555.
2. You have had training in the use of the extinguisher and are confident that you can operate it effectively. **Unless trained, faculty and staff should not use an extinguisher unless they cannot escape the area.**
3. There are no flammable chemicals or other combustible materials near the fire area.
4. You can fight the fire while retaining a safe escape route.
5. The fire is small and confined to the immediate area where it started (e.g., in a wastebasket).

**If you use a fire extinguisher:**

1. begin a safe distance from the fire
2. **P.A.S.S.**
  - **P** - Pull the safety pin and test the extinguisher
  - **A** - Aim the nozzle at the base of the flames
  - **S** - Squeeze the handle
  - **S** - Sweep at the base of the flames

### 2.5 WHAT TO DO IN THE EVENT OF AN EMERGENCY EVACUATION

All students, faculty, and staff should exit the building immediately upon hearing the fire alarm, and the following actions should be taken.

## Section 2 -- Emergency Planning and Procedures

---

1. Turn off equipment that could pose a fire hazard (e.g., Bunsen burners, hot plates).
2. If you are working at a fume hood, pull the sash down and shut off the blower.
3. If you are working at a flammables cabinet, close the door securely.
4. Evacuate the building by the use of the stairs only. Close any doors behind you. Do not use the elevators.

Stairwells exiting from the CSC are located at the north and south ends of the building; these are designated by exit signs located above the doorways. Emergency evacuation routes from the building are posted on wall-mounted maps located at the north and south end of the CSC, next to the emergency showers. Copies are included in Appendix 2-B.

After leaving the building, assemble on the front lawn to the south of the CSC (towards Lemelson), at a safe distance from the building. Those people aware of the circumstances causing the emergency should identify themselves to the responding Campus Police Officer(s).

Do not re-enter the building or leave the assembly area until instructed to do so by Campus Police or the Fire Department.



## **APPENDIX 2-A**

### **Cole Science Center Incident Report Form**

If an accident or incident occurs in the CSC, the EH&S Office and the Lab Manager will investigate and collectively produce a report. The Chief of Campus Police may also contribute to this process. The report itself will record the users in CSC involved with the accident, if it was an emergency situation, what happened, what action(s) were taken by CSC personnel or emergency personnel (Amherst Police Department, Amherst Fire Department, Hampshire College Department of Campus Police, Hampshire College Environmental Health and Safety, Hampshire College Emergency Medical Technicians), and what outcome occurred. There will be a conclusive section, summarizing the incident and what preventative/organizational actions, if any, could be taken in the near future.

Copies of the accident report will go to the CSC Safety Committee, the Chief of Campus Police, and EH&S Office. If appropriate, copies can go to other offices such as the Dean of Faculty, the Director of Facilities and Grounds, or the President's Office. Broader circulation of such a report is only encouraged if it provides direct benefit to issues surrounding the accident. Medical privacy and personal privacy rights must be complied with. A standard example form is included below.

**Cole Science Center**  
**INCIDENT INVESTIGATION REPORT**

(If Campus Police or EMTs responded, Campus Police/EMT Report should be appended)

Today's Date:	Date/Time of Incident:
Injured/Involved Person:	Supervisor/Faculty:
Witnesses:	

<b>INJURED PERSON AND MEDICAL STATUS</b>		
Was anyone Injured? : <input type="checkbox"/> Yes <input type="checkbox"/> No		
<input type="checkbox"/> Employee	<input type="checkbox"/> Student	<input type="checkbox"/> Visitor
All Employee Injuries Must Be Reported to Human Resources		
Describe Injury:		
Was first aid administered: <input type="checkbox"/> Yes <input type="checkbox"/> No		
If yes, describe:		
Was person treated in the emergency room? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Was person hospitalized overnight? <input type="checkbox"/> Yes <input type="checkbox"/> No		

<b>INCIDENT LOCATION</b>
Describe (if location contributed to the incident, please be specific):

<b>INCIDENT INFORMATION</b>
Please answer the following questions and provide any additional information describing how the incident or injury occurred.
What was the person doing?
Was the person following established work procedures? Describe.
Was the work a routine task or something the person has not done before or does infrequently?
If the person was carrying materials, what were they, how heavy were they, should the person have asked for help?
If environmental factors (e.g., temperature, lighting) contributed to the accident, what were they and how did they contribute?
What other conditions in the workplace (e.g., tools, walking surfaces) contributed to the accident?

If chemicals are involved, what chemicals and how were they being used?
Was personal protective equipment (e.g., goggles, gloves, proper footwear) being used? If not, should it have been?
What personal actions (e.g., rushing, not wearing PPE) contributed to the accident?
Additional Information:

WHAT WAS THE PRIMARY CAUSE OF THIS ACCIDENT?			
Describe:			
Classify			
<input type="checkbox"/> <b>Unsafe Condition</b> (an identifiable hazard)	<input type="checkbox"/> <b>Unattentive</b> (distracted or not paying attention)	<input type="checkbox"/> <b>Repetitive Motion</b> (an activity performed over and over again)	<input type="checkbox"/> <b>Unsafe Act</b> (not following established work practices or reasonable conduct)
<input type="checkbox"/> <b>Other</b> (Describe)	If other, describe:		

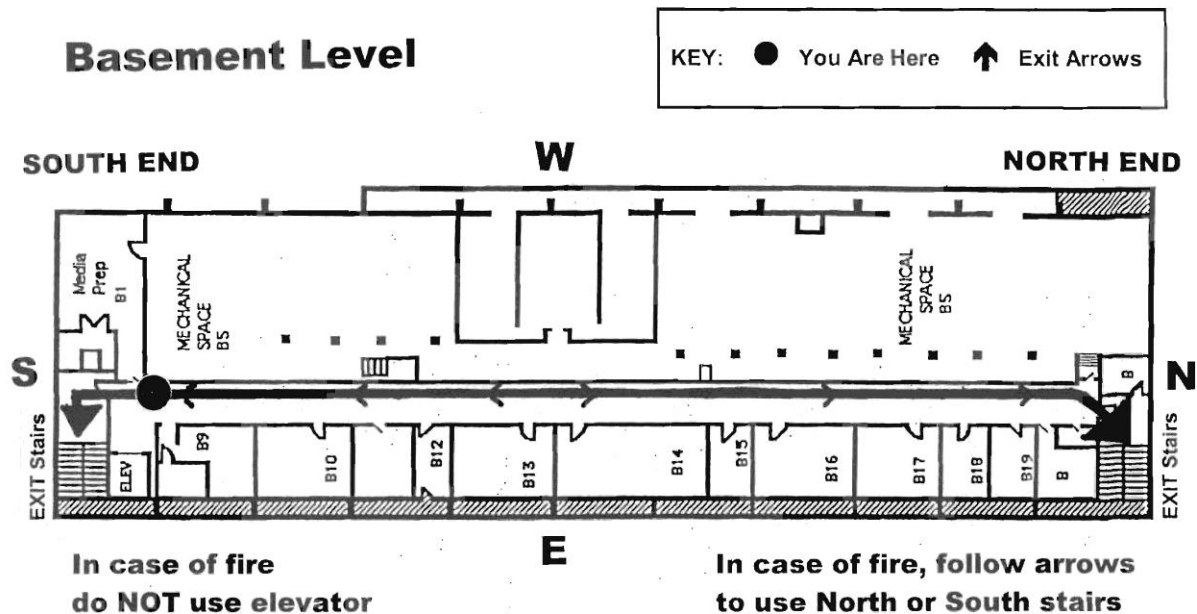
RECOMMENDATIONS FOR PREVENTING SIMILAR ACCIDENTS
Describe:
Is additional training/coaching needed?
Do established work procedures need to be changed?
Is a work order needed to correct a hazard?

HAS RECOMMENDED ACTION BEEN TAKEN?
<input type="checkbox"/> Yes <input type="checkbox"/> No
If not, why, when will it be?

Name(s) of Person/Team Completing this Report:	Date:

## APPENDIX 2-B

### COLE SCIENCE CENTER EMERGENCY EVACUATION PROCEDURES



**Assembly Area: South of building on lawn in front of Lemelson**

**If you see smoke or fire:**

- 1. Alert those around you to evacuate.**
- 2. Close door to room if feasible.**
- 3. Activate fire alarm and evacuate.**
- 4. From a safe place call Campus Police (5555) to describe conditions.**
- 5. Congregate at assembly area.**

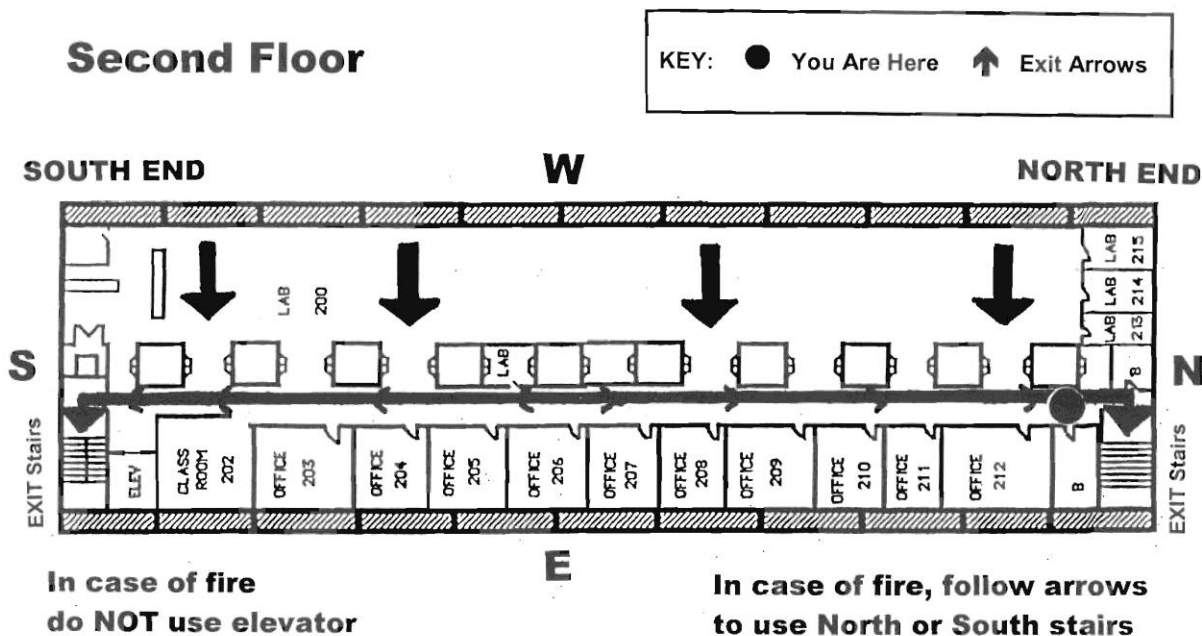
**If the fire alarm activates:**

- 1. Evacuate the building by the nearest exit.**
- 2. If anyone in the building needs assistance evacuating, call Campus Police (5555).**
- 3. Close doors behind you as you exit the building.**
- 4. Congregate at assembly area.**



## APPENDIX 2-B

### COLE SCIENCE CENTER EMERGENCY EVACUATION PROCEDURES



**Assembly Area: South of building on lawn in front of Lemelson**

**If you see smoke or fire:**

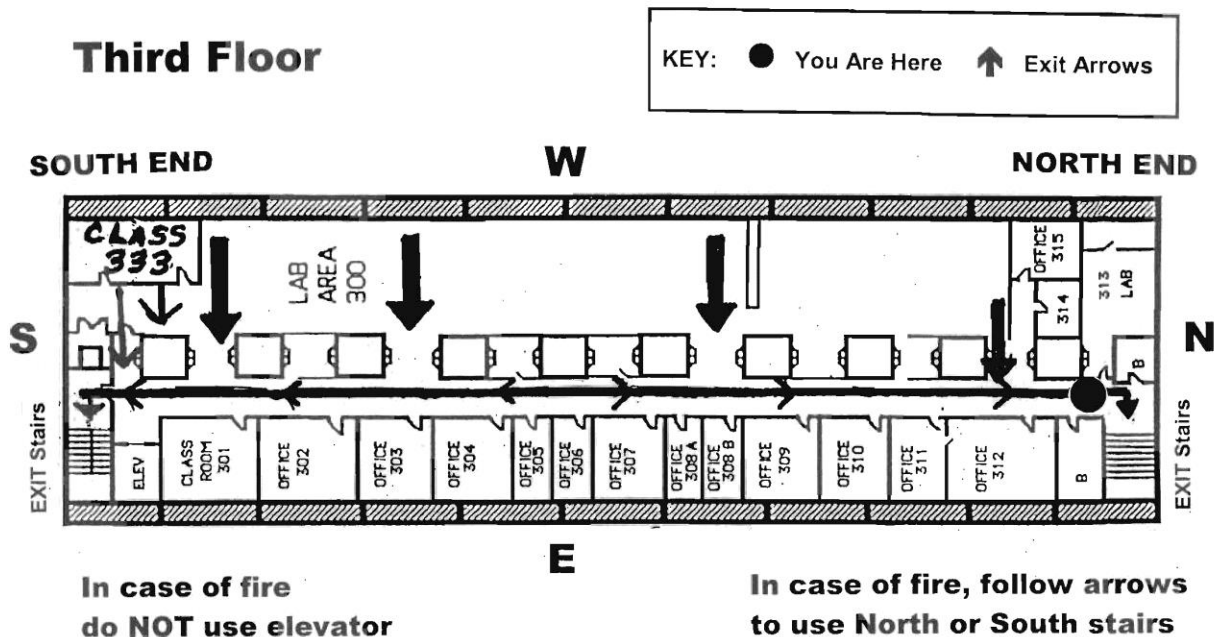
1. Alert those around you to evacuate.
2. Close door to room if feasible.
3. Activate fire alarm and evacuate.
4. From a safe place call Campus Police (5555) to describe conditions.
5. Congregate at assembly area.

**If the fire alarm activates:**

1. Evacuate the building by the nearest exit.
2. If anyone in the building needs assistance evacuating, call Campus Police (5555).
3. Close doors behind you as you exit the building.
4. Congregate at assembly area.

## APPENDIX 2-B

# COLE SCIENCE CENTER EMERGENCY EVACUATION PROCEDURES



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2. Close door to room if feasible.
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5. Congregate at assembly area.

3. Close doors behind you as you exit the building.

4. Congregate at assembly area.

**If the fire alarm activates:**

1. Evacuate the building by the nearest exit.
2. If anyone in the building needs assistance evacuating, call Campus Police (5555).

## APPENDIX 2-C

Cole Science Center B-16

# **OXYGEN SENSOR IN THE NMR ROOM**

The NMR room (Cole B-16) is equipped with a portable oxygen sensor that presents an audible and visual alarm if oxygen levels fall to 19.5% or increase to 23.5%. The GasBadge Plus meter remains on all the time and cannot be turned off. The screen indicates oxygen concentration in % volume. The meter must be left in the NMR room.

### **If the alarm sounds:**

Evacuate the room immediately.

Close the door when everyone is out.

Post signs on NMR room door stating “Low Oxygen – DO NOT ENTER”.

Report alarm condition to department staff or Campus Police.

When reporting, please give details of the conditions in the room at the time of the alarm. Most importantly, detail if there were signs that the magnet may be quenching (hissing noise, loud release of gas, visual signs of evaporating gas escaping from the magnet).



Department staff or Campus Police will call Environmental Health & Safety to have oxygen levels independently checked with a confined space meter prior to anyone reentering the room. Oxygen levels must be restored to normal (20.9%) and the room must be approved safe for reentry by EH&S before anyone may return. Department staff will post a notice to the NS list updating everyone of the status of the NMR room in such an event.

**DEPARTMENT STAFF CONTACT INFORMATION:**

Sarah Steely	Instrument Technician	<b>x5774</b>	Room 212
Rayane Moreira	Faculty	<b>x5615</b>	Room 205
Chelvanaya Gabriel (“Naya”)	Lab Manager	<b>x5386</b>	Room 206

**CAMPUS POLICE:**

Emergency Line **x5555** during the day  
Emergency Line **x1911** after **4:30pm**