

EMERGENCY RESPONSE PLAN

Ford Motor Company Engineering Design Center (Ford)

NORTHWESTERN UNIVERSITY

Updated August 21, 2009

The Ford Motor Company Engineering Design Center (Ford) at 2133 Sheridan Road, Evanston, IL 60208 houses offices, classrooms and labs for Northwestern University's (NU) McCormick School of Engineering and Applied Science. Classes in biomedical engineering and chemical and biological engineering are held in a lab. Fabrication of physical artifacts is done in prototyping and rapid prototyping labs. All occupants are expected to learn building safety procedures and to follow the instructions of department safety contacts and searchers in any drill or evacuation.

<http://www.mccormick.northwestern.edu/emergency/>

Note: The material in this manual was approved by the Technological Institute and Ford Motor Company Engineering Design Center Building Safety Committee on June 8, 2006 with revision on August 19, 2008 and August 21, 2009. The manual has been reviewed by NU Offices of University Police, Facilities Management, Risk Management, Research Safety and General Counsel. It supersedes previous versions of this document.

Signatures on file.

Approved by _____ Date _____
Office Of Risk Management

Reviewed by _____ Date _____
Office for Research Safety

Reviewed by _____ Date _____
NU General Counsel

Reviewed by _____ Date _____
Facilities Management

Reviewed by _____ Date _____
University Police

FACT SHEET 1

Calling for Emergency Assistance

Fire, smoke, explosion, medical emergency, and life-threatening hazardous material spills/odors/leaks (including after hours, weekends, and holidays)	911
Non-emergency/not life threatening	456 from NU phone 847-491-3456
Laboratory Assistance/Office for Research Safety	1-5581 (Evanston) or 847-491-5581 3-8300 (Chicago) or 312-503-8300

- Calls to 911 are routed directly to the City Dispatch Center, which will arrange the dispatch of emergency equipment.
- For non-life-threatening (incidental) hazardous materials incidents that occur after hours, on weekends, and on holidays, call 456 and ask them to page Research Safety.
- Call Research Safety directly during regular business hours and report non-life-threatening hazardous materials/leaks incidents.

University Police (non-emergency) www.northwestern.edu/up/
Emergency Voice Mail

Evanston Campus **1-3456**
Chicago Campus **3-3456**
Provides updated status on campus emergencies **1-1100**

Office of Risk Management **1-5610**

www.northwestern.edu/risk/
Accident Investigations 1-5610
Athletic Insurance 1-5582
Automobile Accidents 1-4434
Driver Training 1-5610
Emergency Plans 1- 3253
Ergonomics 1-3253
Facility Inspections 1-3253
Fire Protection 1-3253

Indoor Environmental Quality 1-3253
Noise Level Surveys 1-3253
Property Loss Claims 1-4334
Safety Training 1-3253
Student Hospitalization 1-5582
Visiting Scholars Insurance 1-5610
Workers' Compensation 1-5582

Office for Research Safety **1-5581**
www.northwestern.edu/research-safety/
Laboratory Safety, Radiation Safety **3-8300**
Emergency Response/Spill Clean-up

Evanston Campus
Chicago Campus
Biological Safety, Chemical Safety
Hazard Communication

Facilities Management **1-5201**
www.northwestern.edu/facilities-management/

Helpline

FACT SHEET 2

Tech Emergency Procedures

FOR ANY INCIDENT REQUIRING EMERGENCY ASSISTANCE SUCH AS INJURY, FIRE, EXPLOSION, SMOKE OR LIFE-THREATENING HAZARDOUS MATERIALS RELEASE, **CALL EMERGENCY SERVICES USING THE YELLOW EMERGENCY PHONE OR CALL EXTENSION 911 FROM A SAFE PHONE.** IF NO TELEPHONE IS AVAILABLE AND THE NEED FOR ASSISTANCE IS URGENT, PULL THE NEAREST FIRE ALARM PULL STATION; IT TRANSMITS TO UNIVERSITY POLICE AND GETS HELP ON THE WAY. **DO NOT PUT YOURSELF AT RISK IN ORDER TO CARRY OUT THE PROCEDURES NOTED BELOW.**

INJURY

Call **911** (or emergency services from emergency phone) for ambulance or sit-up transportation.

FIRE/EXPLOSION/SMOKE

1. Evacuate the room or areas *immediately*.
2. Turn off equipment and close doors and windows, *if this can be done safely on your way out*.
3. **Call 911.** If no phone is nearby and the situation is life-threatening, pull the fire alarm at the red pull box station.
4. Do not use elevators during an emergency.
5. One person meet and inform emergency responders. Provide assistance as requested.

UNIDENTIFIED ODOR

1. During standard business hours, call Facilities Management at 1-5201 (847-491-5201).
2. After hours, call UP at 456 (847-491-3456).

CHEMICAL OR BIOLOGICAL SPILL

1. Notify persons in the immediate area.
2. Turn off ignition sources if a spill is flammable.
3. Establish or maintain exhaust ventilation.
4. Call the Office for Research Safety (ORS) at Ext. **1-5581**. If you cannot reach ORS in an emergency, and after hours, call University Police at **456** (or use emergency phone) and ask them to page ORS.
5. Confine and clean up the spill if you have had appropriate training, wearing designated protective clothing.

RADIATION SPILL

1. Notify persons in immediate area.
2. Wear gloves and protective clothing and confine the spill immediately.
3. Establish or maintain exhaust ventilation.
4. Call the Office for Research Safety (ORS) at Ext. **1-5581**. If you cannot reach ORS in an emergency, and after hours, call University Police at **456** (or use emergency phone) and ask them to page ORS.
5. Decontaminate the area.
6. Monitor personnel involved.

PERSONAL EXPOSURE TO HAZARDOUS MATERIALS

1. Remove clothing and rinse contaminated skin under running water at safety shower for at least 15 minutes.
2. For eyes, rinse eyes and entire face at an eye wash in running water for 15 minutes. Ensure that the area under the eyelids is also rinsed.
3. Get medical attention.

MAJOR WATER SPILL/FLOODING

1. Do not walk in water
3. Do not enter a lab which is taking on water
3. During business hours contact Facilities Management 1-5201(847-491-5201) If you cannot reach FM and/or after hours, call University Police at **456** (847-491-3456) (or use emergency yellow phone in Tech hallway). Non-emergency should call 847-491-3456. FM will be on the scene immediately to turn off electric at the control box (to which only FM has authorization access).

FACT SHEET 3

Emergency Preparedness

WHAT EVERYONE SHOULD KNOW IN ADVANCE

I. BEFORE AN EMERGENCY OCCURS

1. **KNOW** your numbers: Emergency **911**
 Lab Assistance **1-5581 (847-491-5581)**
 Non-emergency **456 (847-491-3456)**
2. **KNOW** the hazards of any materials and equipment in Ford and your work area and the precautions to take to avoid or minimize associated risk.
3. **KNOW** two means of egress from your area and where they lead. Know how to get to your department rally point. Move away from the front concourse of Ford so that Emergency Responders have full access to the area.
4. **KNOW** the locations of fire alarm pull stations.
5. **KNOW** the locations of safety showers, eyewash fountains, and other personal protective equipment and how to use them.
6. **KNOW** the locations of portable fire extinguishers. Only NU-trained personnel should use fire extinguishers. NU Risk Management (1-3253) conducts training sessions to learn how to use them. Enrollment is open.
7. **KNOW** the contents of the Safety Desk Book if your PI has one on file with Office for Research Safety.

II. IF YOU HEAR AN ALARM

Always take alarms seriously. Unless an alarm has been immediately preceded by an announcement that it is a test, you should assume that an alarm is real and then follow appropriate protocol.

The building alarm is an “intelligent” system which that every alarm device is monitored 24/7 by the master control panel. Any alarm that is triggered automatically notifies University Police (UP). In accordance with City of Evanston requirements, a full functional test of the system is conducted annually.

The Ford atrium is equipped with smoke detection that is also connected to the building ventilation system. Activation of the atrium smoke detection will also cause fire shutters in the basement and ground floors to close and smoke dampers to open, allowing the smoke to be exhausted from the building.

- A. **Fire Alarm** The fire alarm includes strobe lights and a whooping signal. Any alarm in the building will close all smoke doors at the stairwells.

If time permits, do an orderly shutdown of your equipment or processes (DO NOT PUT YOURSELF AT RISK TO DO THIS).

Close windows, close doors and leave the building by your primary or alternate evacuation route. Do not use the elevator. Go to your designated rally point, and wait for further instructions. Do not wait in the front concourse of Ford.

Ford complies with existing fire codes.

The main control panel is in room Ford G.122 (inside the front lobby just east of the main staircase).

Strobes will continue to flash until the control panel has been reset, even after the alarms have been silenced. Do not re-enter without official clearance by an authorized official.

Full detail on all of the building safety systems can be found in this plan, Section V.

2. A Word About Fire Extinguishers Only NU-trained personnel should use fire extinguishers. (Call Risk Management at 1-3253 for training.) Make sure someone sounds the alarm. Do not put yourself at risk. Never let a fire get between you and the exit. If one fire extinguisher is not enough, close the door and leave the area. Even if you put out the fire, the Evanston Fire Department must be notified. They will check to make sure the fire has not spread through concealed spaces. Alert Facilities Management so that the extinguisher can be recharged.

- B. **Lab-specific or Equipment Trouble Alarm** Do not confuse equipment alarms with fire alarms. In certain offices or labs, there may be security, incubator, freezer or other equipment alarms. Each lab that contains alarms for equipment is required to post an Alarm Notification sign on the door. Read the signs in your general work area and know where an alarm might go off.

III. ASSISTING PERSONS WITH DISABILITIES

Persons with disabilities may need assistance during evacuations. If you feel you would need assistance during an emergency, or if someone in your group might, you should contact your department's safety committee representative about developing an evacuation plan in advance. Ford Wardens/Searchers should be informed immediately about persons with unique needs who are in their areas, and should be knowledgeable of any special evacuation plans.

IV. EVACUATION ROUTES

A. **Primary and Alternate Routes.** The primary evacuation route is the nearest means of egress from the area. The alternate route is a route that can be used if the primary route is blocked by fire or smoke or is otherwise untenable. Means of egress to a safe location may be:

- Directly outside by a door at ground level
- Vertically by stairways

Every individual should know a primary and alternate route. Ford Wardens/Searchers may not be available to direct you to the nearest exit, so **you should take responsibility in advance** for learning the evacuation routes from your area. If possible, avoid the front concourse of Ford. If you must use it, please move away from the area as soon as possible so that Emergency Responders have full access to the concourse.

B. **Elevator and Stairways** Do not use the elevator during emergencies. Use the stairways, which are both means of egress and places of refuge if needed.

C. **Rally Point** All faculty, staff, students and visitors in Ford should proceed to the Kellogg parking lot south of the building, east of Sheridan Road.

D. **Bridge to Technological Institute** The bridge is not to be used as a refuge. Leave the building and move away from it.

Floor plans of Ford Motor Company Engineering Design Center identifying each of the floors and showing the locations of fire extinguishers, fire alarm pull stations, and stairs are in Appendix I.

FACT SHEET 4

Ford Warden/Searcher and Department Safety Representative Responsibilities

I. FORD EVACUATION ORGANIZATION

- Generally two individuals designated as “Wardens/Searchers” are appointed for each floor. See Appendix K.
- In emergencies, warden/searchers clear their designated area and report clearance and any exceptions to their department-designated safety committee representative or the Ford Building Manager at the evacuation rally point. In an emergency or drill, each Warden/Searcher should be identified with a fluorescent armband.
- Department-designated safety committee representative report department area clearance to the incident commander or Ford building manager at the incident command post (Evanston Fire Engine with green flashing light.) or call 224-402-9470. (Please one call per department so that the lines are kept open to receive calls from all rally points.)
- Ford Warden/Searchers and Department Safety Committee Representatives must be full-time faculty or staff, knowledgeable of the general operations and hazards in the building, the specific emergency procedures in their respective area, and they should be fully familiar with all Fact Sheets and The Emergency Response Plan.
- Wardens/Searchers are to be certified annually by their Department Safety Committee member. See the on-line certification survey at <http://survey.mccormick.northwestern.edu/warden/>
- Warden/Searchers and Department Safety Committee Representatives are indemnified by the University for any claims against them arising out of their emergency response duties.
- As part of advance preparedness, it is strongly recommended that Wardens/Searchers and Department Safety Representatives share cell phone numbers with each other.

II. GENERAL WARDEN/SEARCHER PROCEDURES

A. Warden/Searcher action before an alarm sounds. When notified of a fire, smoke, explosion, life-threatening or major hazardous material release/odor, or other hazardous situation requiring emergency response in the Warden/Searcher’s zone, the Warden/Searcher should take the following action. **At no time should a Warden/Searcher jeopardize his or her own personal safety.**

- For life-threatening situations Dial **911** and report the incident. Call Research Safety at **1-5581** for incidental spills. Call Facilities Management at **1-5201** for non-life threatening odors. For all other non-life threatening incidents, call UP at **456**.
- If no phone is nearby and the situation is life-threatening, activate the fire alarm at the red pull-box station.

- Don your armband; sweep your area and tell all persons to leave. Be aware of special needs people.
- If time permits, check off your room roster (see Appendix C) and close doors.
- Leave your area, proceed to your rally point and report to your departmental safety representative, particularly of any evacuation exceptions or problems. As you leave, you may alert entering emergency responders to anyone refusing to leave your area.
- Departmental safety representatives or a designee then report into either the Incident Commander or the Ford Building Manager outside at the Incident Command Center (Evanston Fire Engine with green flashing light).
- If you have first hand information on the specific incident, advise the Emergency Responders regarding location, origin and any persons still at risk.

III. COMMAND POST

First responders (e.g., UP officers) will establish an incident command post outside of Ford. The specific location will be dependent on center of disaster. A UP officer will be the incident commander, responsible for organizing the emergency response and establishing communications.

If the Evanston Fire Department arrives, the fire department on-scene commander will become the incident commander, and UP officers then assume a support function.

The incident commander will maintain communications and confer with Facilities Management, Risk Management, ORS, Ford Building Manager, principal investigators or other persons knowledgeable about the incident. Principal investigators or other persons with first-hand knowledge of the circumstances of the incident should report to the Ford Building Manager and/or the incident commander at the command post.

Wardens/Searchers with first-hand knowledge of the incident will wear their armbands, identify themselves to the incident commander and report any relevant information that may be of immediate assistance to emergency responders. After reporting they may remain near the command post (but not so close as to interfere with operations) to await further instructions. Building occupants who have evacuated should stay near their designated rally point and away from the command post, unless they have information about the incident, which the commander should know.

Do not stand or wait in any area where you will interfere with the traffic of the Emergency Responders, particularly the front concourse of Ford. Egress to and from the building must be clear to allow the emergency responders free access and passage.

IV. TERMINATING THE EVACUATION

When the incident commander has conferred with NU/McCormick authorities and reached agreement that the building is safe for reentry, it will be announced by a person in authority.

Termination of the alarm is not sufficient. Persons authorized to announce reentry are:

- Uniformed UP officers
- Plainclothes UP officers with badges
- University Emergency Response Team personnel with photo identification badges.
- Evanston Fire Department incident commander
- These are the only persons who are authorized to announce that it is safe to reenter the building.

The Ford Building Manager will advise the Ford Safety Representatives via cell phone or visual signal when it is safe to return.

FACT SHEET 5

Safety Guidelines for Active Shooter Situations on Campus

Introduction

An active shooter is a person or persons who appear to be actively engaged in killing or attempting to kill people, most often in populated areas. In most cases active shooters use firearm(s) and display no pattern or method for selection of their victims. In some cases active shooters use improvised explosive devices to cause additional victimization and act as an impediment to law enforcement and emergency services responders. These improvised explosive devices may detonate immediately, have delayed detonation fuses, or may detonate on contact. Active shooter situations are dynamic and evolve rapidly, demanding immediate response by the community and immediate deployment of law enforcement resources to stop the shooting and prevent further harm to the community. This document provides guidance to faculty, staff, and students who may be caught in an active shooter situation, and describes what to expect from responding law enforcement officers. Be aware that the 911 system may become overwhelmed.

Guidelines

In general, how you respond to an active shooter will be dictated by the specific circumstances of the encounter. If you find yourself involved in an active shooter situation, try to remain calm and **Call 911** as soon as possible.

If an active shooter is outside your building or inside the building you are in, you should:

- Try to remain calm.
- Try to warn other faculty, staff, students and visitors to take immediate shelter.
- Proceed to a room that can be locked or barricaded.
- Lock and barricade doors or windows.
- Turn off lights.
- Close blinds.
- Turn off radios or other devices that emit sound.
- Keep yourself out of sight, stay away from windows and take adequate cover/protection, i.e. concrete walls, thick desks, filing cabinets.
- Silence cell phones.
- Have one person **Call 911** and provide:
 - “This is Northwestern University (give your location) we have an active shooter on campus, gunshots fired.”
 - If you were able to see the offender(s), give a description of the persons(s) sex, race, clothing, type of weapon(s), location last observed, direction of travel, and identity – if known.

- If you observed any victims, give a description of the location and number of victims.
- If you observed any suspicious devices (improvised explosive devices), provide the location observed and a description.
- If you heard any explosions, provide a description and location.
- Wait patiently until a uniformed police officer, or a university official known to you, provides an “all clear.”
- Unfamiliar voices may be an active shooter trying to lure you from safety; do not respond to voice commands until you can verify with certainty that they are being issued by a police officer or university official.
- Attempts to rescue people should only be attempted if it can be accomplished without further endangering the persons inside a secured area.
- Depending on circumstances, consideration may also be given to exiting ground floor windows as safely and quietly as possible.

If an active shooter enters your office or classroom, you should:

- Try to remain calm.
- Try not to do anything that will provoke the active shooter.
- If there is no possibility of escape or hiding, only as a last resort when it is imminent that your life is in danger should you make a personal choice to attempt to negotiate with or overpower the assailant(s).
- **Call 911**, if possible, and provide the information listed in the first guideline.
- If the active shooter(s) leaves the area, barricade the room or proceed to a safer location.

If you are in an outside area and encounter an active shooter, you should:

- Try to remain calm.
- Move away from the active shooter or the sounds of gunshot(s) and/or explosion(s).
- Look for appropriate locations for cover/protection, i.e. brick walls, retaining walls, large trees, parked vehicles, or any other object that may stop bullet penetration.
- Try to warn other faculty, staff, students and visitors to take immediate shelter.
- **Call 911** and provide the information listed in the first guideline.

What to expect from responding police officers

The objectives of responding police officers are:

- Immediately engage or contain the active shooter(s) in order to stop life threatening behavior.
- Identify threats such as improvised explosive devices.
- Identify victims to facilitate medical care, interviews and counseling.
- Investigation

Police officers responding to an active shooter are trained to proceed immediately to the area in which shots were last heard in order to stop the shooting as quickly as possible. The first responding officers may be in teams; they may be dressed in normal patrol uniforms, or they may be wearing external ballistic vests and Kevlar helmets or other tactical gear. The officers may be armed with rifles, shotguns or handguns. Do exactly as the officers instruct. The first responding officers will be focused on stopping the active shooter and creating a safe environment for medical assistance to be brought in to aid the injured.

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FORD MOTOR COMPANY ENGINEERING DESIGN CENTER (FORD)

EMERGENCY RESPONSE PLAN

I. INTRODUCTION

This is the emergency response plan for the Ford Motor Company Engineering Design Center (Ford). Successful emergency evacuation of the building depends on prompt and correct decisions of the occupants and their immediate actions during the first minutes of the incident. In an emergency situation, building occupants are on their own until first responders arrive. First responders may include University Police (UP), Facilities Management (FM), Risk Management (RM), Office of Research Safety (ORS), and the Evanston Fire Department (EFD). In most cases, University Police are likely to arrive first.

This manual will provide you with information you should know concerning emergency response procedures and the Ford safety systems. Please read the entire manual so you will know how to respond to emergency situations. If you need more information about your local emergency plans, consult with your volunteer evacuation warden/searcher, supervisor or your department's safety committee representative.

Each department must have a safety/evacuation plan containing all safety information specific to the department, including departmental emergency response procedures and current wardens/searchers. The departments are encouraged to post this plan on their website. In addition, each principal investigator must have a Laboratory Safety Profile within ISIS, and is encouraged to have a Safety Desk Book. A hard copy version or links to the contents of the Safety Desk Book is acceptable.

For further information on general safety and fire protection, call Risk Management's Division of Safety and Loss Prevention, at 1-3266. To obtain a Safety Desk Book binder or for more information regarding chemical, biological, or radiation hazards, contact the Office for Research Safety at 1-5581.

II. UNIVERSITY POLICY REGARDING SAFETY

Northwestern University is committed to providing a safe and healthful environment in which teaching, research, and public service can flourish. The University is further committed to comply with federal, state, and local regulations relating to property standards, employee health and safety, and the protection of the environment.

This policy and the regulations and guidelines set up are applicable equally to all students, faculty, staff, and visitors. Each individual is responsible for adhering to the policy and carrying out the regulations and guidelines.

III. RESPONSIBILITY FOR SAFETY

A. Deans

Deans responsible for departments having facilities in Ford shall see that Department Heads/Chairs and Program and Institute Directors fulfill their obligations, as described below.

B. Department Head, Definition and Duties

The term “department head” means academic department chairs, program and institute directors and others with similar responsibility. The department head is responsible for compliance with Northwestern University safety procedures. The department head is responsible for providing a safe work place for faculty, staff, students, and visitors within the department’s facilities. The department head shall ensure that supervisors, principal investigators, instructors, and others conduct training for their employees and students in the proper procedures to provide a safe environment.

9 Safety Duties for Department/Program Heads

1. Review/learn the Ford Emergency Response Plan.
2. Maintain and post (bulletin boards/website) a current (annual) department evacuation plan (copy to McCormick Administration).
3. Advise the Office for Research Safety (ORS) promptly of new faculty arrivals and ensure they submit lab safety plans as appropriate.
4. Ensure every PI/lab meets ORS compliance re. Laboratory Safety Profile, annual inspection and MSDS posting.
5. Ensure your entire department is regularly trained for emergency evacuation and safety precautions appropriate to their duties (minimum annual review).
 - a. Enforce safety training prior to allowing any employee or student to work at any hazardous task.
 - b. Schedule fire extinguisher training with Risk Management (1-3253) for appropriate lab personnel (technicians, grad students).
 - c. Participate in/comply with periodic evacuation drills or training.
 - d. Provide safety orientation training for new faculty, staff, and students.
6. Ensure your department wardens/searchers participate in Tech-Ford Safety Committee-sponsored on-line certification
<http://survey.mccormick.northwestern.edu/warden/certification.php>
7. In coordination with ORS and Risk Management, enforce compliance with all federal, state, local and university regulations regarding safety and the handling of hazardous materials, including:
 - a. Appropriate signage for hazardous materials/operations (Appendix E).

- b. Appropriate use of safety/personal protective equipment and adherence to safety precautions.
- c. Disclosure of presence and implementation of controls for toxic substances.

8. Remind faculty at the start of each academic quarter to review classroom safety and evacuation procedures with their students.

9. Promptly investigate accidents or hazardous situations and complete the ORS Incident Report form with distribution to ORS, Risk Management (Safety and Loss Prevention), and appropriate McCormick Deans (Administration/Research).

C. Principal Investigators (PI) and Supervisors

Principal investigators and supervisors are responsible to the department head to carry out the responsibilities listed above under the department head. Principal investigators and supervisors may assign responsibility for certain safety functions to subordinates; however, they may not delegate their accountability to the department head for the safety of their areas of operation.

As appropriate, the PI is required to file a Safety Plan with the Office for Research Safety. MSDS Sheets are to be current, on file in the workplace and easily accessible during all working hours.

Every PI is required to be in compliance with the Office for Research Safety standards for laboratory operation including:

- 1) Submission of a safety profile
 - a. upon establishing a new lab
 - b. keep current as personnel, processes and locations change
 - c. submission of a current chemical inventory
- 2) Register for a ChemTracker account if in possession of a Homeland Security Chemical of Interest
- 3) Annual laboratory inspections.

D. Department Safety Building Representative/Safety Committee Member

Every McCormick department head having a designated area in Tech and/or Ford is to appoint a faculty member to the committee (EECS has two representatives, one for Tech and one for Ford). Generally, this person is also the department safety representative. The safety representative must know the emergency procedures for his/her area, the Tech/Ford building, and the University. Safety representatives shall coordinate the department's program of accident prevention, safety training, and emergency response.

The chair of the committee is appointed by the deans responsible for departments having facilities in Tech/Ford. The committee roster can be found in Appendix A.

Ex officio members include representatives from Cook and Catalysis Center safety committees, the Office of Risk Management, the Office for Research Safety, University Police, and Facilities Management.

The safety committee is responsible for developing safety policies and procedures that affect all occupants of the building and each member is responsible for ensuring the policies are implemented in each of their respective resident departments.

The committee wrote this manual and reviews it on an annual basis. When emergencies occur, the committee reviews the actions of both building occupants and emergency responders, identifies any deficiencies in the plan or its execution and recommends any changes to correct them.

The committee is responsible for coordinating annual evacuation drills and Warden/Searcher certification (see Appendix D).

E. Wardens/Searchers

The department head will appoint two Wardens/Searchers for each area/floor of departmental space in the building. Wardens/Searchers must be full-time faculty or staff. Wardens/Searchers shall be knowledgeable of the general operations, hazards, and emergency procedures for their zones. **Never shall a Warden/Searcher jeopardize his/her own safety in order to carry out emergency procedures.**

Detailed duties for Warden/Searchers are contained in Fact Sheet 4 at the beginning of this plan. Additionally, Warden/Searchers shall complete the on-line survey

<http://survey.mccormick.northwestern.edu/warden/certification.php>

F. Office for Research Safety (ORS)

ORS is responsible for coordination of the University's chemical, biological, radiation, and laser safety; general laboratory safety; and hazardous waste disposal programs. ORS coordinates general regulatory compliance with several OSHA standards including the laboratory standard, the hazard communication standard, and the blood-borne pathogens standard. ORS also coordinates compliance with employee and community right-to-know laws. ORS maintains compliance with the broad license issued by the State of Illinois under which all radioactive materials are used, and ORS maintains the state registrations governing use of X-ray machines.

ORS programs encompass a variety of services including pickup and disposal of hazardous wastes, safety training, laboratory surveys, ISIS PI data management, bioassay, industrial hygiene studies, incident investigation, and chemical fume hood evaluation.

The ORS Emergency Response Team is trained and equipped to deal with spills of hazardous chemicals and radioactive materials. ORS investigates accidents in laboratories and recommends follow-up action to prevent recurrence.

ORS publishes core training, policy, and procedure documents including Chemical and Biological Safety in Laboratories, Radiation Safety Handbook, Model Exposure Control Plan (for blood-borne pathogens), and the quarterly newsletter Research Safety News.

ORS supports several University safety committees including the Chemical and Biological Safety, Radiation Safety, and Recombinant DNA, as well as local committees such as the Tech-Ford Safety Committee.

G. Facilities Management Department (FM)

The Facilities Management Department maintains the basic building facilities. This includes fire extinguishers, fire hoses, building fire alarm systems, ventilation systems, eyewashes, and safety showers in hallways, other public areas and labs, and the building electrical and piping systems. Facilities Management personnel respond to emergencies to help as needed in evacuation and handling building services and equipment.

H. Office of Risk Management (ORM)

Risk Management is responsible for general fire safety and the general safety of building occupants. ORM inspects the building and reports safety violations to the department head and/or Facilities Management, where appropriate, for correction. ORM investigates accidents. The Claims Division of Risk Management handles Workers' Compensation claims for occupational injuries and illnesses.

ORM is responsible for coordination and development of emergency response plans for buildings. They provide help in developing safety policies and procedures and general safety training programs, and conduct evacuation warden training sessions. They provide advice on local and national codes related to facilities, materials handling, storage, and fire protection.

I. University Police (UP)

The Patrol Division of UP responds to emergency calls and alarms, and provides assistance and site control at an emergency. The UP communications officer will summon the fire department or ambulance when needed. Responding UP officers can provide emergency first aid and/or arrange transportation to the emergency room if needed.

J. Instructors Using FORD Classrooms

Instructors are responsible for the safety of their classes, shops and labs in Ford and must familiarize themselves with emergency responsibilities and procedures in Appendix I. Instructors should also be aware of an exit route and alternate exit from the building.

K. The Individual - You

In an emergency situation, building occupants are on their own until first responders (usually University Police) arrive. Develop a safety-conscious attitude and be aware of emergency call numbers, Ford evacuation routes and Ford emergency equipment (alarm pull stations, safety showers, eye washes, smoke doors, etc.)

Safety requirements are available for most basic work procedures. If they are not available, ask your supervisor. Your responsibility is to know the safety requirements and put them into practice in your work place. Safety requires the same attitude in a classroom, research laboratory, machine shop, art studio, or office. Learn in advance what you can about the properties, hazards, and safety measures pertinent to the materials and equipment you will use. Always include safety considerations in planning and carrying out your work. Individuals who do not follow the safety plans and rules will be referred for disciplinary action that can include dismissal from the University.

IV. EVACUATION DRILLS

Building evacuation drills are to be held on a timely cycle. Drills will be coordinated between the safety committee, McCormick Administration and Risk Management. Drills help in evaluating the plan, familiarize occupants with the sound of alarms and with evacuation routes, and provide a training opportunity for Wardens/Searchers. The Office of Risk Management, and the Evanston Fire Department will observe the evacuation drills and provide an evaluation to the safety committee.

V. BUILDING SAFETY SYSTEMS

A. Fire Alarm System

The building alarm is an “intelligent” system which means that every alarm device is monitored 24/7 by the master control panel. Any alarm that is triggered automatically notifies University Police. In accordance with City of Evanston requirements, a full functional test of the system is conducted annually.

Fire alarm pull stations are located throughout the building, usually at or near a stairway or exit. If a phone is not nearby to call 911 and the situation is urgent, use the pull station to report any fire, smoke, unidentified odor or other emergency. If you pull a fire alarm pull station, an alarm sounds throughout the building. The alarm control panel shows the location of the alarm source for the individual system and automatically transmits the alarm information to the University Police (UP). The alarm system has a battery back-up as well as a connection to an emergency generator. Power failure or a fault in the system wiring will transmit a “trouble” alarm to the UP and sound a buzzer at the alarm control panel.

Any monitor (manual pull station, smoke detector, heat detector, sprinkler or standpipe waterflow) will sound the alarm.

Strobes will continue to flash until the control panel has been reset, even after the alarms have been silenced.

Ford complies with existing fire codes. Automatic sprinklers protect all areas. The atrium is equipped with smoke detection that is also connected to the building ventilation system. Activation of the atrium smoke detection will also cause fire shutters in the basement and ground floors to close and smoke dampers to open, allowing the smoke to be exhausted from the building.

The main control panel is in room Ford G.122 (inside the front lobby just east of the main staircase).

Any alarm in a smoke detector in the elevator lobby other than the ground floor, elevator equipment room, or elevator shaft will cause the elevator to “recall” to the ground floor.

Activation of a smoke detector on the ground floor in the elevator lobby will cause the elevator to “recall” to the first floor. Activation of a heat detector in the elevator shaft or elevator equipment room will shut off power to the elevator.

Operation of the Fire Pump will send a direct signal to University Police. Direct signals are also sent to University Police.

B. Security/Equipment Alarms

Do not confuse equipment alarms with fire alarms. In certain offices or labs, there may be security alarms or incubator and freezer alarms, respectively, that sound similar to the fire alarms. It is best to prepare for emergencies by learning to distinguish these alarms from the main building system. Each lab that contains alarms for equipment is required to post an *Alarm Notification* sign on the door. This sign explains which alarms are inside, what they signify, what they are expected to sound like, and whom to contact if they are activated. Read the signs in your general work area and know where an alarm might go off. Ask personnel in nearby offices whether they have alarms on office equipment, e.g., printers that buzz when out of paper. This way you can be certain that you have the information to react properly when a specific type of alarm is signaling. Samples of the alarm signs are included in Appendix E.

C. Automatic Sprinkler System

An automatic sprinkler system protects Ford. Automatic sprinkler activation will trigger a fire alarm and transmit the alarm to the UP.

Some persons mistakenly believe that if one sprinkler head on a system is activated, the entire system will discharge water. Actually, only the head or heads that reach the predetermined temperature will activate and discharge water. Most sprinklers are set to discharge water when the temperature at the sprinkler head reaches 165°F. Some activation temperatures are set higher or lower because of special conditions in the protected area. Only the fire department, after their arrival, can approve shutting off a sprinkler system.

Sprinkler heads must always be kept clear of high-piled storage or equipment. At least 18 inches of clear space shall be available below the line of sprinklers to prevent the water discharge from being deflected from a fire. Sprinkler heads need to be kept paint-free and must be protected from being struck and damaged or broken off. Report all problems or leaks with the automatic sprinkler systems to Facilities Management (FM) (491-5201; for after-hours emergencies, contact University Police at 1-3254).

D. Fire Extinguishers

Fire extinguishers of various types can be found in hallways, laboratories, and other areas throughout the building.

Only individuals trained by NU in using fire extinguishers should use them. See the fire extinguisher chart at the back of this manual (Appendix G) for a selection guide. The label on each fire extinguisher shows the class or classes of fire that it will extinguish. Information on fire extinguishers is available from the Office for Research Safety or Risk Management. Department heads should contact Risk Management to schedule fire extinguisher training (held outside, weather permitting) for their personnel.

Regulations require fire extinguishers to be kept in specific locations, either in cabinets or mounted on wall brackets, and to be kept unobstructed and easily accessible. Report missing, empty, or damaged extinguishers to FM (491-5201) as soon as possible. If you

use a fire extinguisher, do not return it to its cabinet or bracket; call FM to replace it as soon as possible.

E. Emergency Generators

In case of electrical power outage affecting Ford , emergency generators in the penthouse of the building will start automatically and supply electricity. The emergency generator supplies power to the fire alarm systems, emergency lighting, ventilation equipment, sump pumps, and certain special research equipment.

VI. FIRE FIGHTING

Only if you have University training in fire extinguisher operation should you attempt to extinguish a small (one that requires only the use of one portable fire extinguisher to put out the fire) or incipient fire. All other fires are the fire department's responsibility. Do not use water on fires of flammable liquids, grease, or combustible metals. Using water on these fires can cause spattering or explosive spreading of the fire. Do not use water on fires involving energized electrical equipment. Putting water on energized electrical equipment creates a shock hazard. If possible without endangering yourself, turn off electrical equipment involved in a fire by turning off the switch or circuit breaker or by pulling the plug.

For flammable liquid or grease (class B) or electrical (class C) fires, use a carbon dioxide or multi-purpose dry chemical fire extinguisher. The dry chemicals leave a great deal of residue and could damage delicate electrical equipment such as computers. Carbon dioxide is better, although it might cause some moisture to condense on the equipment. Combustible metal (class D) fires require special dry powder fire extinguishers or sand.

When fighting a fire:

1. Stay low and do not breathe any more vapors than are necessary.
2. Avoid exposure to extreme heat.
3. Stay between the fire and the exit to avoid getting trapped.
4. Aim the extinguisher at the fuel, rather than at the flame.
5. Do not stay in any room or area where there is any significant amount of smoke or where other toxic, biological, or radioactive vapors may be present.
6. Report **all** fires to UP and the Evanston Fire Department even if the fire was extinguished without an activated alarm.

VII. CLOTHING FIRE

DO NOT RUN. If a safety shower is immediately nearby, get under the shower and let the water flow over the burned area until medical help arrives. Otherwise, the universal instruction is **STOP, DROP, AND ROLL.** Immediately drop to the floor and roll repeatedly to extinguish the flames, holding your hands over your face to protect it from the flames.

Get burned areas under cool water as soon as possible. Do not apply creams or other medications, but get help without delay. See your department Safety Desk Book and laboratory door Emergency Information sign for locations of safety shower and eyewash stations.

VIII. CHEMICAL, BIOLOGICAL, OR RADIATION EMERGENCIES

Post an “Emergency Procedures for Laboratories” sign inside each laboratory using hazardous materials and an “Emergency Information” sign outside on the closed door. (See Appendix F.) Copies are available from the Office for Research Safety (ORS). Information related to the safe handling of hazardous chemicals, biological agents, or radioactive materials should be contained in your Laboratory Safety Plan and your Laboratory and/or Department Safety Desk Book. Questions related to the safe handling of hazardous chemicals, biological agents, or radioactive materials should be directed to the PI.

In an emergency involving any of these types of agents, call ORS (1-5581) and University Police (UP; extension 911). If a sudden accidental release of possibly hazardous vapors, particulates, or gas should occur, use the same alarm and evacuation procedures as for fire. Leave the area quickly and avoid breathing the vapors as much as possible. From a safe location, contact ORS and UP. Do not return to the area until told that it is safe to do so. Help emergency responders by providing information as needed. Persons directly involved and principal investigators in the affected laboratories should go to the fire department command center (usually located in the shift commander’s van, sometimes with a flashing green light on the top) if the fire department is involved. Ask a UP officer to direct you there.

In case of an accidental spill of hazardous material, notify all persons in the area and evacuate the area and the area to which it might spread. If it is an incidental spill, contact ORS (1-5581). ORS will provide information and equipment for containment, protection and clean up. Major spills require outside assistance and mandate calling 911.

Note: If you cannot reach ORS in an emergency, and after hours, call University Police at Extension 456 and ask them to page Research Safety.

IX. POWER OUTAGE

Emergency generators in the Ford Building provide emergency power to the fire alarm system and emergency lighting in exit areas. However, in case of a power outage, two problems arise in individual work areas: (1) seeing well enough to maneuver and (2) possible damage to processes and/or equipment. Keep a flashlight located where it could easily be found in the dark or keep a plug-in battery-operated emergency light in the work place. Emergency planning should include what to do about shutting down or otherwise manipulating processes that might create a hazard during power failure and/or upon the restoration of power. This would include such things as chemical processes that require continuous heating, stirring, or other electrically operated devices.

X. BOMB THREAT

Take any bomb threat seriously, and report it immediately by calling 911 and the Associate Dean’s office (extension 1-7234).

If you receive a written bomb threat, do not handle it any more than necessary, but place it in an envelope to preserve possible finger prints. If you receive a telephoned threat, note the exact time of the call and attempt to write down the exact words of the caller. Ask him/her to repeat information. Get as much information as possible by asking when the bomb is set to explode, what kind of bomb it is, where it is located, and what it looks like. Call 911 and the Dean's office and give them all of the information you obtain.

XI. SUSPICIOUS PACKAGES

Suspicious packages should be reported to the University Police (UP; extension 456) immediately. A suspicious package should not be touched or moved, and the immediate area surrounding the package should be cleared. Some letter and parcel recognition points are:

- Excessive weight; excessive postage or no postage
- Incorrect titles or titles, but no names
- Handwritten or poorly typed; misspelling of common words
- Oily stains or discolorations; protruding wires or foil
- Excessive securing materials such as masking tape, string, etc.
- No return address; restrictive markings such as confidential, personal, etc.
- Rigid or lopsided or uneven envelope
- Visual distractions; foreign mail, air mail, or special delivery
- Strange odor

XII. SUSPICIOUS PERSONS

Suspicious persons should not be directly confronted, but should be reported to University Police (**UP; extension 456**) immediately. Provide the UP communications officer with as much information as possible including a description of the person or persons, the nature of their activity, and their location and direction of travel. Remember, if it worries you, the UP need to know. They would rather be called and not needed than needed and not called.

XIII. TORNADO PROCEDURE

The City of Evanston will sound the Civil Defense sirens to warn the community if a tornado is sighted or we are in the path of a tornado. The sirens are positioned throughout the city and will sound a continuous three-minute unwavering blast. These sirens are tested on every first Tuesday of the month around 10 A.M.

If you are inside a building, go to an interior hallway or other enclosed area on a lower floor and away from windows. Avoid going into auditoriums, gymnasiums or other large rooms where roof collapse may be more likely. If you are outside when you hear the warning siren, seek inside shelter, preferably in a steel-framed or reinforced concrete building of substantial construction. Ford is such a building. **AVOID WINDOWS.**

Please provide disabled and elderly people assistance in seeking a safe location. In case of casualties, call 911.

XIV. INJURY OR ILLNESS

If someone has an injury or becomes suddenly ill and requires emergency medical attention, call 911. Advise the location of the victim and the nature of the injury or illness. Your department Safety Plan should list the locations of first aid kits and names of persons in the department who have training in first aid or CPR.

For any victims with potential contamination by radioactivity or a hazardous material:

1. Call 911 and call ORS at 1-5581.
2. Keep the victim as comfortable as possible.
3. Do not move the victim any more than is necessary for his/her safety.
4. Never administer liquids to an unconscious victim.
5. Do not remove objects that may be imbedded in the victim's skin.

XV. WORKERS' COMPENSATION

Workers' Compensation covers employees of the University, including faculty, staff, and students working part-time on the University payroll, for work-related injury or illness. Students not on the University payroll are under the care of the University Health Services. However, Workers' Compensation may classify a student or other person doing work for the University and receiving a stipend from departmental funds or a contributing outside organization as an employee.

If you have an injury or illness as a direct result of work or a hazardous condition in your work place, report the incident to your supervisor. Also, you and your supervisor must report the injury or illness to the Claims Division of the Office of Risk Management. Call the Claims Division (491-5582) within 24 hours after an injury occurs or when you first become aware of an occupational illness or as soon as practical. It is important that you report any injury no matter how small. The Occupational Safety and Health Act and Illinois Workers' Compensation regulations require that the University report all work-related injuries.

Do not wait for complications to arise; get treatment as soon as possible.

If the injury is traumatic, and/or deemed to be life-threatening in nature, (i.e., hemorrhaging, chest pains, cessation of breathing, severe burns, open fractures, severe head injuries or other situations) it is recommended that the employee seek immediate emergency medical care at Evanston Hospital. For these life-threatening situations, call 911.

For non-life threatening work related injuries, employees and supervisors should contact the claims manager at (847) 491-5582 to arrange an appointment at an OMEGA Facility. Northwestern University has designated Occupational Medicine Evanston/Glenbrook Association (OMEGA) as the primary medical care facility for work-related injuries and illnesses. The general OMEGA phone is (847) 657-1700. OMEGA has 2 locations, one centrally located at 1000 Central Street, Suite 840, Evanston, IL. Office hours are Monday,

Wednesday, Friday, 8:00 a.m. through 11:30 a.m. The second facility is located at 2150 Pfingsten Road, Suite 3000, Glenview, IL. OMEGA hours in Glenview are 7:30 A.M. to 5:00 P.M. on Monday, Wednesday, or Friday. Tuesday and Thursday hours are 7:30 a.m. to 8:00 p.m. Saturday hours are 8:00 a.m. to Noon. Use Evanston Hospital emergency services after 5:00 P.M. or before 7:30 A.M. Monday through Friday and on weekends and holidays if your condition is too serious to wait until OMEGA reopens. Injured employees who go to Evanston Hospital shall identify themselves as Northwestern University OMEGA patients and show their Wildcard. OMEGA will coordinate any follow-up care, if needed, at one of their facilities.

When an employee receives any invoices for medical services rendered, send them to the Claims Division at 2020 Ridge Avenue, Evanston, IL 60208-4335. For further information on Workers' Compensation regulations and benefits, call the Claims Division, at (847) 491-5582.

XVI. PERSONAL SAFETY

The personal safety of every member of the Northwestern community is of high importance. Please see the Office of Risk Management website www.northwestern.edu/risk/handbook.htm

APPENDIX A

TECHNOLOGICAL INSTITUTE AND FORD ENGINEERING DESIGN CENTER
BUILDING SAFETY COMMITTEE 2009-10

MEMBER

Alvin Bayliss
Aaron Packman
Bartosz Grzybowski
Hooman Mohseni
Jack Tumblin
Debbie Burton
Malcolm MacIver
Charles Thompson
Kathleen Stair
Ajit Tamhane
Alice Kelley
Marvin Lofquist
John Mordacq
David Taylor
Rolf Ziemann
Teri Collins
Elizabeth Brasher

CONSTITUENCY

Engineering Science/Applied Math
Civil and Environmental Engineering
Chemical & Biological Engineering
Electrical Engineering & Computer Science – Tech
Electrical Engineering & Computer Science - Ford
Mechanical Engineering
Biomedical Engineering
Industrial Eng/Management Science
Materials Science and Engineering
McCormick Senior Associate Dean
Tech and Ford Building Management (McC Admin)
WCAS Associate Dean
Biology
Physics
Facilities Management
Chemistry
Ford Building Manager

EX OFFICIO

Quentin Bruhn	Facilities Management
Steve Matz	Facilities Management
Kit Ramos	Facilities Management
Peggy Adamson	Cook Hall Safety Committee
Shaban Darvish	Center for Quantum Devices Lab
Mark Mitchell	Risk Management, Safety Division
Dave Perkins	Risk Management, Safety Division
James LaVigne	Risk Management, Safety Division
Lt. Shaun Johnson	University Police
Clement Stokes	Director NU Emergency Management
Jasmine Tucker	Catalysis Center Safety Committee
George Morton	Research Safety
Markus Schaufele	Research Safety

OTHER

David Ventre	CEE Lab Coordinator
Deirdre Dennett	McC Administration

8/5/09

Appendix B

TECHNOLOGICAL INSTITUTE AND FORD CENTER

DEPARTMENT/CENTER RALLY POINTS AS OF 8-14-2009

<u>Department/Center</u>	<u>Rally Point</u>
Administration	Front lobby Sargent Hall
Biochemistry	Lobby Frances Searle Bldg
Biology	2 nd floor lobby of Hogan
Biomedical Engineering	Lobby Frances Searle Bldg
Chem. & Biol Eng	Mudd Library
Chemistry	Outside Courtyard between Ryan & Hogan
Civil Engineering	Lobby Bobb Hall
EECS officed in Tech	Lobby Crown Sports Pavilion
EECS officed in Ford	Kellogg Parking Lot south of Ford
ESAM	Lobby Sargent Hall
IEMS	Lobby Sargent Hall
Mechanical Engineering	Sargent Hall Parking Lot
Facilities Management	East lower lobby Annenberg
Physics	Lobby Dearborn Observatory
Research Safety	Nanofabrication Facility
Tech Shops	East lower lobby Annenberg

FORD - All faculty, staff, students and visitors in Ford should be directed to the Kellogg parking lot south of the Ford, east of Sheridan Road.

Students in Tech should be directed to the Sargent Hall and Allen Center parking lots.

In the event of an emergency, the Evanston Fire Department will require full access to the front and rear concourse of Tech. The Command Center will be a fire engine with a green flashing light. If you must exit through the front or rear concourse, please move immediately away from the area and go to your rally point.

Each department safety representative (faculty) or his/her designee should check in with McC Administration/Tech and Ford Building Manager at the Command Center (Evanston Fire with green flasher) to report on evacuation status by either coming to the Command Center or, from your rally point, calling 224-402-9470. (Please one call per department so that the lines are open to receive calls from all rally points.)

APPENDIX C

**FORD Warden/Searcher Evacuation Checklist –
Room Roster**

It is recommended
that the Warden fill in
room numbers and
occupant names in
advance

Warden/Searcher Name:
Department or Center:
Coverage Area:
Dept Safety Rep:
Rally Point:

STATUS

<u>Classroom, Lecture Hall, Office, Lab, Other Rooms by Room Number</u>	<u>Name of Assigned Occupant(s)</u>	<u>Notified</u>	<u>Cleared</u>	<u>Door Closed</u>	<u>Comments</u>
---	---	-----------------	----------------	------------------------	-----------------

Delivered To:
Date:
Time:
Exceptions Reported To Incident Cmdr/Bldg Mgrs:
Time:

APPENDIX D

FORD MOTOR COMPANY ENGINEERING DESIGN CENTER BUILDING

Warden/Searcher – Certification

See on-line certification survey at <http://surveys.mccormick.northwestern.edu/warden/>.

EMERGENCY

CHEMICAL OR BIOLOGICAL AGENT SPILL

FIRE, POLICE, AMBULANCE, FIRE DEPARTMENT, CHEMICAL, BIOLOGICAL, RADIATION INCIDENT

Information for Laboratory (rooms)

Special Hazards in this Laboratory:

1. NOTIFY persons in immediate area.
2. TURN OFF ignition sources, if flammable.
3. ESTABLISH or maintain fresh air ventilation.
4. CALL the Office for Research Safety.
5. EVALUATE spill severity.
6. CONFINE AND CLEAN, if you have received appropriate training.

Special Precautions for Fire Department or other Emergency Personnel:

Types and Locations of Nearest Personal Protection Equipment (Shower, Eye Bath, Respirator, Fire Blanket, etc.):

Shower
Eyewash

Responsible Faculty or Staff Persons:

_____ Phone: Day -
Night -

_____ Phone: Day -
Night -

Date of Above Information:

EMERGENCY PROCEDURES FOR LABORATORIES

Primary Concern Shall Always Be The Safety of The Individual

MAJOR FIRE, EXPLOSION, OR SPILL

EVACUATE the room immediately.

PULL FIRE ALARM if available.

CALL 911 and call 456 (847-491-3456) to notify University Police.

WAIT for emergency personnel.

ASSIST emergency personnel

RADIATION SPILL

1. **NOTIFY** persons in immediate area.
2. **CONFINE** spill, using gloves and protective clothing.
3. **CALL** the Office for Research Safety.
4. **DECONTAMINATE** area.
5. **MONITOR** personnel involved

NON-EMERGENCY CALL 456

FOR LAB ASSISTANCE CALL

**RESEARCH SAFETY, CHICAGO 3-8300 RESEARCH SAFETY,
EVANSTON 1-5581**

ALARM NOTICE

AN ALARM IS PRESENT IN THIS ROOM.

BUILDING _____

ROOM _____

WHEN IT GOES OFF, THE ALARM SOUNDS LIKE:

THE ALARM SIGNIFIES:

IF YOU HEAR AN ALARM IN THIS ROOM:

RESPONSIBLE FACULTY OR STAFF PERSONS:

_____ DAY PHONE _____
NIGHT PHONE _____

_____ DAY PHONE _____
NIGHT PHONE _____

PLEASE POST ON THE OUTSIDE OF THE DOOR

DATE OF INFORMATION _____

NORTHWESTERN UNIVERSITY
EVANSTON - CHICAGO

OFFICE FOR RESEARCH SAFETY
(847) 491-5581
FAX (847) 467-2797

TECH NG71
2145 SHERIDAN ROAD
EVANSTON, ILLINOIS 60208

Principal Investigator Alarm Notification Responsibilities

University safety policy, as promulgated by the Chemical and Biological Safety Committee (CBSC), requires all principal investigators or lab supervisors to provide ORS with information regarding alarms present in their individual laboratory spaces. Please complete the attached **Alarm Notification** form and return it to **ORS** promptly. ORS will log this information into a comprehensive database that allows us to track all the potential research-related warning signals in labs across both campuses.

This policy was enacted in response to an after-hours incident during which a security officer mistook an office alarm signal for a hazard warning/distress alert. As a conscientious watchman, he proceeded to notify ORS emergency personnel of a suspected leak. The emergency responders came to resolve what they believed to be a potential chemical spill/release, only to discover that a printer was out of paper. Without pertinent information for interpreting the alarm, security personnel must assume a worst case scenario. The ORS database is designed to preclude a repeat of this event by giving us the means to contact lab occupants for specific directions.

In order to comply with the alarm tracking project, you are required to:

- Send ORS the above-mentioned form, thoroughly completed for each laboratory room with an alarm under your supervision.
- Appoint a responsible party/designate to respond to alarm calls.
- Post an **Alarm Notice** sign (blank template enclosed) on the outside of each door to each lab room housing an alarm(s). The sign lists the lab contact personnel.
- Maintain the operations manual for the instrument or equipment connected to the alarm in an easily accessible and advertised location, clearly known to the contacts. ORS recommends 2 copies: one in your office and one in the affected lab.

Please note that the (CBSC) definition of alarms is all-encompassing:

- security alarms
- anti-theft protection alarms
- incubator gas tank alarms
- toxic gas detector alarms
- any alarms that are installed by lab personnel and are not University-owned or -maintained (e.g., chemical fume hood alarms are not required to be reported if they are fixtures that come with the lab).
- when in doubt, contact ORS for assistance.

Remember that UP, ORS, Safety and Loss Prevention, Security Guards, Custodians, Neighbors from other labs may need to determine the cause of an alarm. Without adequate information from you, responders may over- or under-react. A security alarm may be perceived as a release of toxic gas that threatens the safety of building occupants. A freezer fault alarm unheard or misunderstood may mean the loss of important samples.

You must indicate the course of action required if an alarm sounds. You must explain whether the lab can be entered safely or not. The required paperwork and materials will ensure that this information is available to those outside your lab who may hear the sound and wonder how to react.

Thank you for your cooperation with the alarm notification program. If you have any questions regarding the alarm notification policy or if you require additional forms and signs, please call ORS.

Alarm Notification

Complete this form and return it to the Office of Research Safety (ORS) promptly. This information is required in the event the alarm activates and a knowledgeable person from your staff must be contacted to resolve the alarm.

Date _____ Principal Investigator _____

Responsible faculty or staff trained to respond to the alarm and to shut it down:

	<i>Primary Contact</i>	<i>Alternate Contact</i>
<i>Name</i>		
<i>Department</i>		
<i>Office Room</i>		
<i>Office Phone</i>		
<i>Home Phone (for emergency use)</i>		

An alarm is present in the following location:

Building _____ Room _____ Phone _____

The alarm sounds like: _____

The alarm signifies: _____

Describe the procedure to be followed if someone hears the alarm signal: _____

The operation manual for the equipment associated with the alarm is located in the following place(s): _____

Special considerations for emergency responders (i.e., special entry requirements, hazards in labs, etc.): _____

Received at ORS on _____ by _____

APPENDIX G

APPENDIX G PORTABLE FIRE EXTINGUISHER SELECTION GUIDE

PORTABLE FIRE EXTINGUISHER SELECTION Guide

CLASSIFICATION	A										B		C		D	
	WATER TYPES	MULTIPURPOSE DRY CHEMICAL	FOAM	HALON 1211	CO ₂	SELF EXPELLING	STORED PRESSURE	CARTRIDGE OPERATED	STORED PRESSURE	CARTRIDGE OPERATED	STORED PRESSURE	CARTRIDGE OPERATED	STORED PRESSURE	CARTRIDGE OPERATED	STORED PRESSURE	CARTRIDGE OPERATED
SIZES AVAILABLE	2 1/2 Gal. 5 Gal.	2 1/2 Gal. 5 Gal. 10 Gal. 15 Gal.	2 1/2 Gal. 5 Gal. 10 Gal. 15 Gal.	2 1/2 Gal. 5 Gal. 10 Gal. 15 Gal.	2 1/2 Gal. 5 Gal. 10 Gal. 15 Gal.	2 1/2 Gal. 5 Gal. 10 Gal. 15 Gal.	2 1/2 Gal. 5 Gal. 10 Gal. 15 Gal.	2 1/2 Gal. 5 Gal. 10 Gal. 15 Gal.	2 1/2 Gal. 5 Gal. 10 Gal. 15 Gal.	2 1/2 Gal. 5 Gal. 10 Gal. 15 Gal.	2 1/2 Gal. 5 Gal. 10 Gal. 15 Gal.	2 1/2 Gal. 5 Gal. 10 Gal. 15 Gal.	2 1/2 Gal. 5 Gal. 10 Gal. 15 Gal.	2 1/2 Gal. 5 Gal. 10 Gal. 15 Gal.	2 1/2 Gal. 5 Gal. 10 Gal. 15 Gal.	2 1/2 Gal. 5 Gal. 10 Gal. 15 Gal.
HORIZONTAL RANGE (APPROX.)	30 to 40 ft.	10-15 ft. 15-45 ft.	10-15 ft. 15-45 ft.	10-15 ft. 15-45 ft.	10-15 ft. 15-45 ft.	10-15 ft. 15-45 ft.	10-15 ft. 15-45 ft.	10-15 ft. 15-45 ft.	10-15 ft. 15-45 ft.	10-15 ft. 15-45 ft.	10-15 ft. 15-45 ft.	10-15 ft. 15-45 ft.	10-15 ft. 15-45 ft.	10-15 ft. 15-45 ft.	10-15 ft. 15-45 ft.	10-15 ft. 15-45 ft.
DISCHARGE TIME (APPROX.)	1 to 3 Min.	8-25 Sec. 15-45 Sec.	8-25 Sec. 15-45 Sec.	8-25 Sec. 15-45 Sec.	8-25 Sec. 15-45 Sec.	8-25 Sec. 15-45 Sec.	8-25 Sec. 15-45 Sec.	8-25 Sec. 15-45 Sec.	8-25 Sec. 15-45 Sec.	8-25 Sec. 15-45 Sec.	8-25 Sec. 15-45 Sec.	8-25 Sec. 15-45 Sec.	8-25 Sec. 15-45 Sec.	8-25 Sec. 15-45 Sec.	8-25 Sec. 15-45 Sec.	8-25 Sec. 15-45 Sec.

CLASS A FIRES ... ordinary combustible materials, such as wood, cloth, paper, rubber, and many plastics.
 CLASS B FIRES ... flammable liquids/gases, and greases.
 CLASS C FIRES ... energized electrical equipment where the electrical conductivity of the extinguishing media is of importance.
 CLASS D FIRES ... combustible metal, such as magnesium, titanium, zirconium, sodium and potassium.



* NOTE: On-1-1 Dry Chemical types effective on pressurized flammable gases/liquids for deep fat fryers. Multipurpose A/B/C dry chemical NOT acceptable.
 ▲ NOTE: Protection required below 40° F.

NORTHWESTERN UNIVERSITY

	PRESSURIZED WATER (Class A)	CARBON DIOXIDE (Class BC)	A. B. C. POWDER (Class ABC)
PAPER - CLOTH WOOD - RUBBISH COMBUSTIBLES, ETC.	YES EXCELLENT	SURFACE FIRES ONLY	YES EXCELLENT
VOLATILE LIQUIDS GAS - OIL - PAINT, ETC.	NO	YES EXCELLENT	YES EXCELLENT
ELECTRICAL PANELS - MOTOR APPARATUS, ETC.	NO	YES EXCELLENT	YES EXCELLENT
CAPACITY	2 GALLONS	5 LBS. 10 LBS. 15 LBS. 20 LBS.	2½ LBS. 5 LBS. 10 LBS. 20 LBS. 30 LBS.
OPERATING METHOD	BREAK SEAL, PULL PIN, SQUEEZE HANDLE	BREAK SEAL, PULL PIN, SQUEEZE HANDLE	BREAK SEAL, PULL PIN, SQUEEZE HANDLE
FIRE FIGHTING AGENT	WATER	CARBON DIOXIDE	ALL PURPOSE POWDER
APPROXIMATE HORIZONTAL RANGE	40-55 FEET	3-10 FEET	5-20 FEET
APPROXIMATE DISCHARGE TIME	1 MINUTE	8-30 SECONDS	8-25 SECONDS

LABEL SYMBOLS

CLASS **A**



FOR WOOD, PAPER, CLOTH, TRASH AND OTHER
ORDINARY COMBUSTIBLES.

CLASS **B**



FOR GASOLINE, GREASES, OIL, PAINTS, AND
OTHER FLAMMABLE LIQUIDS.

CLASS **C**



FOR LIVE ELECTRICAL EQUIPMENT.

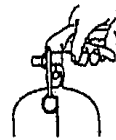
The label on the extinguishers show one or more of the above symbols designating the types of fires on which this extinguisher should be used.



1. PULL PIN



2. AIM AT BASE OF FIRE





3. SQUEEZE LEVER SWEEP SIDE TO SIDE

APPENDIX H.






FORD Floor Plans

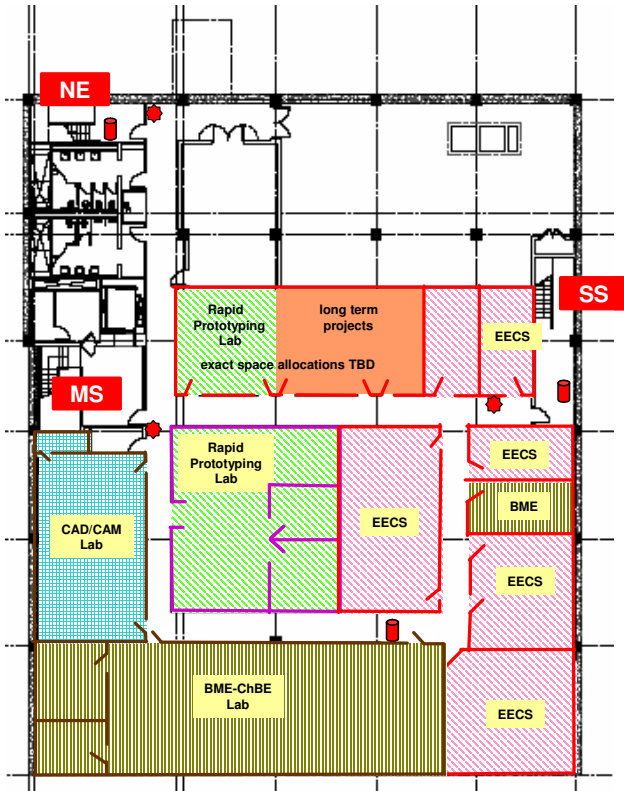
Sub Basement

- Egress: **SS**
- MS - main stairs to front lobby exit
 - NE - Northeast stairs to alley exit
 - SS - South stairs to south exit
-  Fire Alarm
  Fire Extinguisher

Ford Motor Company Engineering Design Center

Sub Basement

-  long term projects flex space
-  Rapid Prototyping Lab space
-  CAD/CAM Lab space
-  BME-ChBE Lab space
-  EECS space






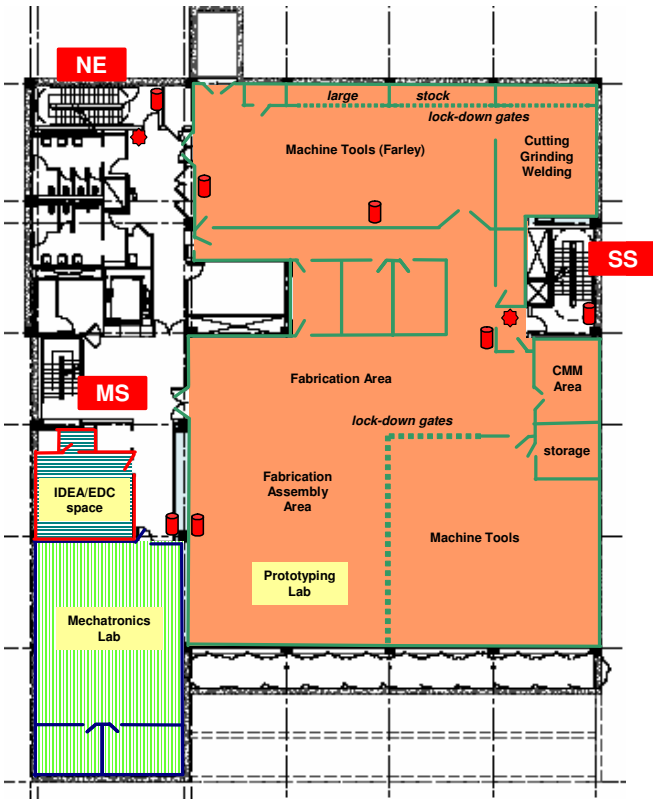
Basement

- Egress: **SS**
- MS - main stairs to front lobby exit
 - NE - Northeast stairs to alley exit
 - SS - South stairs to south exit
-  Fire Alarm
  Fire Extinguisher

Ford Motor Company Engineering Design Center

Basement

-  Prototyping Lab space
-  Mechatronics Lab space
-  IDEA/EDC space



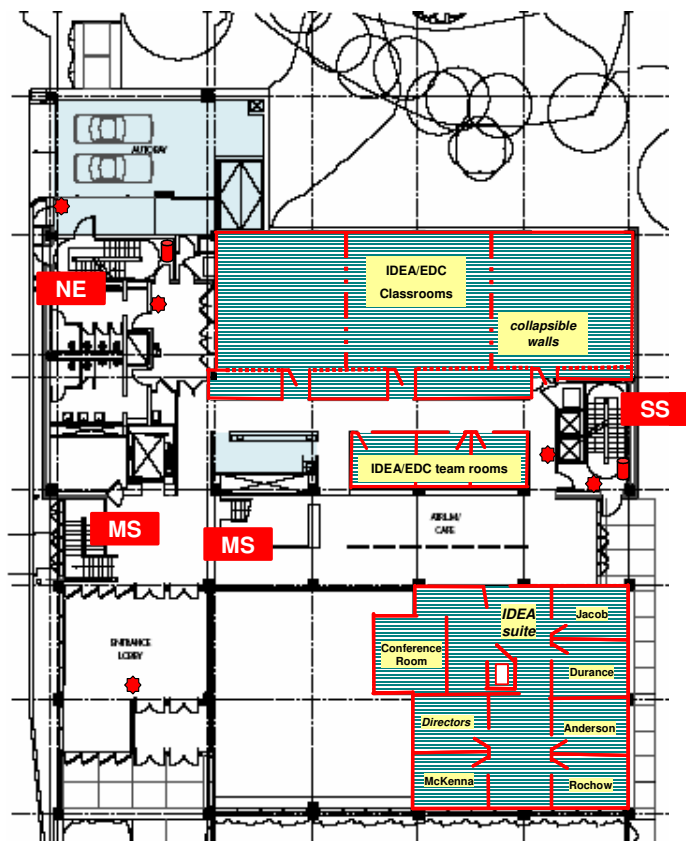
Ground Floor

- Egress: **SS**
- MS - main stairs to front lobby exit
 - NE - Northeast stairs to alley exit
 - SS - South stairs to south exit

- Fire Alarm
- Fire Extinguisher

**Ford Motor Company
Engineering Design Center**

Ground Floor



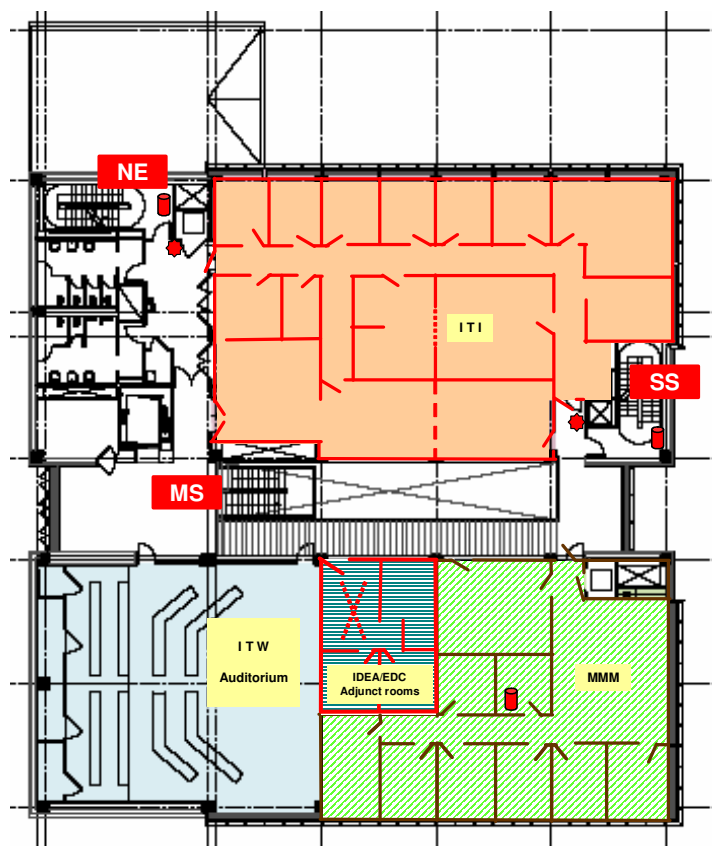
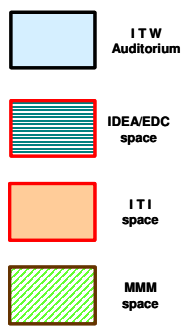
First Floor

- Egress: **SS**
- MS - main stairs to front lobby exit
 - NE - Northeast stairs to alley exit
 - SS - South stairs to south exit

- Fire Alarm
- Fire Extinguisher

**Ford Motor Company
Engineering Design Center**

First Floor



Second Floor

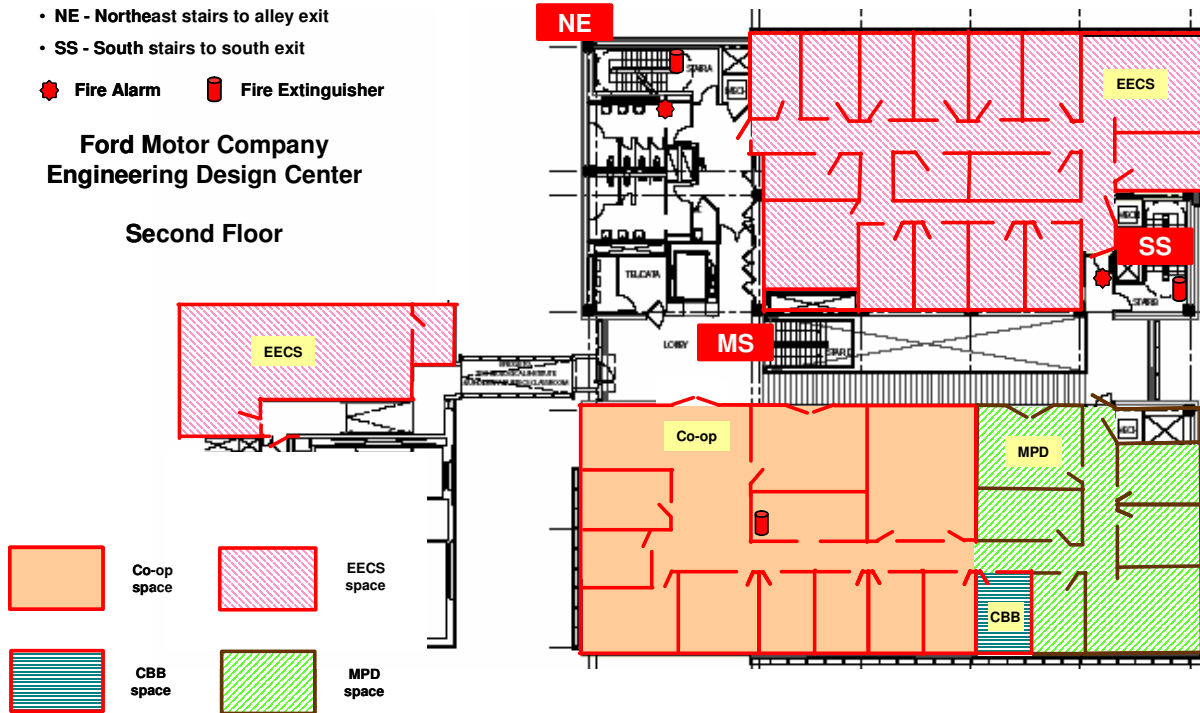
Egress: **SS**

- MS - main stairs to front lobby exit
- NE - Northeast stairs to alley exit
- SS - South stairs to south exit

 Fire Alarm  Fire Extinguisher

Ford Motor Company
Engineering Design Center

Second Floor



Third Floor

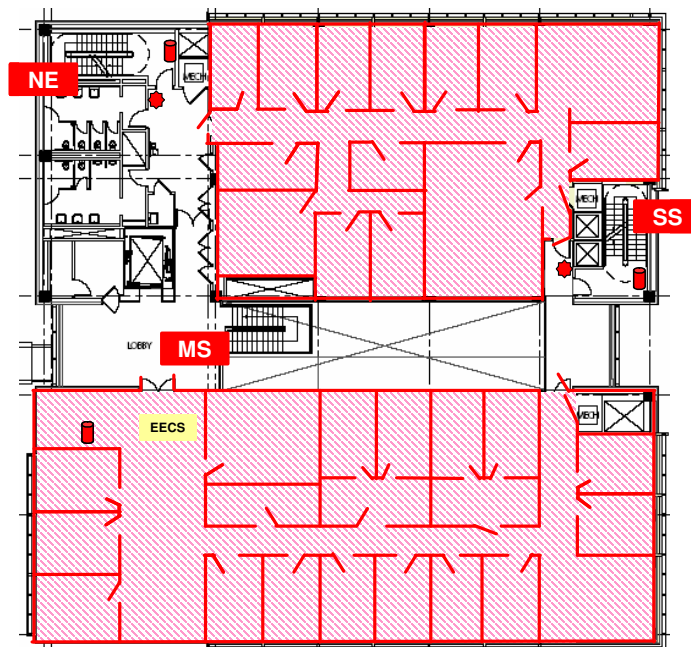
Egress: **SS**

- MS - main stairs to front lobby exit
- NE - Northeast stairs to alley exit
- SS - South stairs to south exit

 Fire Alarm  Fire Extinguisher

Ford Motor Company
Engineering Design Center

Third Floor



APPENDIX I

Emergency Responsibilities and Procedures for Instructors using Ford Classrooms

As an instructor, you are responsible for preparing the students in your class for responding to emergency situations in Ford. These guidelines are designed to assist you.

Class Preparation

1. Identify the exits nearest to your classroom and plan emergency evacuation routes. The primary evacuation route is the nearest means of egress from an area. If fire, smoke and/or other conditions block the primary route, use an alternate route.

If possible, avoid the front concourse of Ford. If you must use it, please move away from the area as soon as possible so that Emergency Responders have full access to the concourse.

2. Review the evacuation routes and emergency procedures (see Fact Sheets 1, 2, and 3 attached) with your class at the beginning of the quarter.
3. In advance/at the beginning of the quarter, determine a specific emergency plan for any class member(s) with disabilities.

Note that you *must* evacuate your class in response to any alarm (whether a drill, a false alarm, or a real emergency); the only exception is a previously-announced test of the alarm system. The safety of your class members is more important than any lost class time.

In the event of a tornado warning (a continuous three-minute unwavering blast of the Civil Defense sirens), go to an interior hallway or other enclosed area on a lower floor and away from windows. Avoid going into auditoriums or other large rooms where roof collapse may be more likely. **AVOID BEING NEAR WINDOWS.**

Attachments: FACT SHEET 1 – Calling for Emergency Assistance
 FACT SHEET 2 - Tech Emergency Procedures
 FACT SHEET 3 - Tech Emergency Preparedness
 FACT SHEET 4 – Warden/Searcher Responsibilities
 FACT SHEET 5 – Active Shooter Safety Guidelines

APPENDIX J

Tech & Ford Safety Wardens/Searchers by Department

8/20/2009

2009-2010

<u>NAME</u>	<u>DEPARTMENT</u>	<u>AREA RESPONSIBLE</u>	<u>e-mail</u>
Tech			
Steve Slocombe	Administration	L wing, 1st flr, frt corrid L wing north, 2nd fl, north corrid	s-slocombe@northwestern.edu
Gwen Murphy	Administration		gwen-murphy@northwestern.edu
Grocholski, Jason	Administration	L wing, 2nd flr, fr corridor	j-grocholski@northwestern.edu
Joe Firca	Administration/CR	L wing, 3rd flr, frt corrid	j-firca@northwestern.edu
Mike Vilches	Administration	Ground floor	m-vilches@northwestern.edu
Mordacq, John	Biology	D wing, ground floor	<j-mordacq@northwestern.edu>,
Hodgson, Tracy	Biology	M wing, ground floor	t-hodgson@northwestern.edu
Ellington, Roberta	Biology	M wing, ground floor	r-ellington@northwestern.edu
Hartmann, Mitra	BME	D wing, first floor	m-hartmann@northwestern.edu
Messersmith, Phil	BME	E wing, 2nd floor	philm@northwestern.edu
Glucksberg, Matt	BME	E wing, 3rd floor	<m-glucksberg@northwestern.edu>,
Lorenzo, Virginia	BME	E wing, 3rd floor	v-lorenzo@northwestern.edu
Troy, John	BME	E wing, 3rd floor	<j-troy@northwestern.edu>,
Kromine, Alexey	BME	E wing, basement	a-kromine@northwestern.edu
Dowding, Charles	CEE	A wing, 1st Floor	<c-dowding@northwestern.edu>.
Garza, Richard	CEE	A wing, 1st floor	richardg@northwestern.edu
Warta, Richard	CEE	A wing, 2nd floor	r-warta@northwestern.edu
Nowakowski, Kim	CEE	A wing, 2nd floor	k-nowakowski@northwestern.edu
Nie, Marco	CEE	A wing, 3rd floor	y-nie@northwestern.edu
Neumann, Craig	CEE	A wing, Ground and Basement	c-neumann@northwestern.edu
Ventre, David	CEE	A wing, Ground and Basement	<d-ventre@northwestern.edu>,
Grzybowski, Bartosz	ChBE	D wing, first floor	<grzybor@northwestern.edu>,
Gerety, Laura	ChBE	E wing, 1st floor	<l-gerety@northwestern.edu>,
Broadbelt, Linda	ChBE	E wing, 1st floor	broadbelt@northwestern.edu
Miller, Bill	ChBE	E wing, 2nd floor	<wmmiller@northwestern.edu>,
Leonard, Josh	ChBE	E wing, 2nd floor	j-leonard@northwestern.edu
Burghardt, Wes	ChBE	E wing, ground floor	<w-burghardt@northwestern.edu>,
Torkelson, John	ChBE	E wing, ground floor	<j-torkelson@northwestern.edu>,
Jones, Jacqueline	ChBE	E wing, 2nd floor	jacqueline-jones@northwestern.edu
Devillier, Sarah	ChBE	E wing, ground floor	s-devillier@northwestern.edu
McGrath, Brian	ChBE	M215	b-mcgrath@northwestern.edu
Sherwood, Noreen	ChBE	NG 41, 43	n-sherwood@northwestern.edu
VanDuyne, Richard	Chemistry	D Wing, ground floor	vanduyne@northwestern.edu
Bugaris, Dan	Chemistry	G Wing, 1st floor	d-bugaris@northwestern.edu
VanDuyne/Stair Group	Chemistry	G Wing, 1st floor	
Marks, Tobin	Chemistry	G Wing, 2nd floor	t-marks@northwestern.edu
Albrecht, Thomas	Chemistry	G Wing, ground floor	talbrecht@northwestern.edu
Charlie Weiss	Chemistry	H wing, 1st floor	charles-weiss@northwestern.edu
Klaic, Lada	Chemistry	H wing, 2nd floor	l-klaic@northwestern.edu
	Chemistry	H wing, 2nd floor	
Watts, Bonita	Chemistry	H wing, ground floor	b-watts@northwestern.edu
Zwergel, Eberhard	Chemistry	H wing, ground floor	e-zwergel@northwestern.edu
Jones, Aaron	Chemistry	K Wing, 1st floor	aaron.jones@northwestern.edu
Pipersburgh, Gerri	Chemistry	K Wing, 1st floor	gerri@northwestern.edu

Savara, Ashi	Chemistry	K Wing, 1st floor	ashi@northwestern.edu
Yin, Grace	Chemistry	K Wing, 1st floor	gyin@northwestern.edu
Buckbinder, Avi	Chemistry	K Wing, 1st floor	a-buchbinder@northwestern.edu
Ahn, Chun	Chemistry	K Wing, 1st floor	chunahn@northwestern.edu
Marcano, Yoriel	Chemistry	K Wing, 2nd floor	y-marcano@northwestern.edu
Schott, Peggy	Chemistry	K Wing, 2nd floor	m-schott@northwestern.edu
Ambrogio, Mike	Chemistry	K Wing, 2nd floor	m-ambrogio@northwestern.edu
Gothard, Chris	Chemistry	K Wing, 2nd floor	cgothard@northwestern.edu
Kanatzidis, Mercouri	Chemistry	K Wing, 2nd floor	m-kanatzidis@northwestern.edu
Lewis, Fred	Chemistry	K Wing, 3rd floor	fdl@northwestern.edu
Washlow-Kauffman, Gail	Chemistry	K Wing, 3rd floor	g-washlow-kaufman@northwestern.edu
Priest, Owen	Chemistry	K Wing, 3rd floor	priest@chem.northwestern.edu
Scheidt, Karl	Chemistry	K Wing, ground floor	scheidt@northwestern.edu
Sweeney, Christina	Chemistry	K Wing, ground floor	Christina-sweeney@northwestern.edu
Stair Group	Chemistry	K Wing, ground floor	
Ott, Andy	Chemistry	K Wing, ground floor	a-ott@northwestern.edu
Shafaie, Saman	Chemistry	K Wing, ground floor	sepehr@northwestern.edu
Lambert, Joseph	Chemistry	M Wing, 1st floor	jlambert@northwestern.edu
Beck, Pamela	Chemistry	M Wing, 2nd floor	pamela-beck@northwestern.edu
Hawker, Dustin	Chemistry	M Wing, 2nd floor	d-hawker@northwestern.edu
Davoust, Clark	Chemistry	K Wing, ground floor	davoust@northwestern.edu
Hoffman, Brian	Chemistry	N Wing, ground floor	<bmh@northwestern.edu>,
Lakovits, Joe	Chemistry	N Wing, ground floor	lakovits@northwestern.edu
Lyerla, Albert	EECS	C,D,M wings, ground floor	lyerla@eecs.northwestern.edu
Flasch, Norm	EECS	C,D,M wings, ground floor	flasch@eecs.northwestern.edu
Bryce, Deneen Marie	EECS	L wing, 3rd floor	deneen@eecs.northwestern.edu
Nejmeh, George	EECS	L wing, 3rd floor	george@eecs.northwestern.edu
Nocedal, Jorge	EECS	L wing, 4th floor	nocedal@eecs.northwestern.edu
Zhou, Hai	EECS	L wing, 4th floor	haizhou@eecs.northwestern.edu
Mohseni, Hooman	EECS	M wing, 2nd floor	hmohseni@northwestern.edu
Shahriar, Selim	EECS	M wing, 2nd floor	shahriar@eecs.northwestern.edu
Bundalo, Pred	EECS	M wing, 3rd floor	pred@eecs.northwestern.edu
Pappas, Thrasos	EECS	M wing, 3rd floor	t-pappas@northwestern.edu
Sahakian, Alan	EECS	M wing, 3rd floor	sahakian@eecs.northwestern.edu
Berry, Randall	EECS	M wing, 3rd floor	rberry@eecs.northwestern.edu
Katsaggelos, Aggelos	EECS	M wing, 4th floor	aggk@eecs.northwestern.edu
Haddad, Abraham	EECS	M wing, 4th floor	ahaddad@eecs.northwestern.edu
Darvish, Shaban	EECS (CQD)	M wing, 2nd floor	s-ramezanidarvish@northwestern.edu
	ESAM	D wing, Ground Floor	
Scanlon, Molly	ESAM	M wing, 4th floor	mscanlon@northwestern.edu
Chopp, David	ESAM	M wing, 4th floor	chopp@northwestern.edu
Siculan, Beth	ESAM	M wing, 4th floor	b-siculan@northwestern.edu
Miksis, Mike	ESAM	M wing, 4th floor	miksis@northwestern.edu
	Facil. Mgt.	Building entrance	En
	Facil. Mgt.	Building entrance	En
	Facility Mgmt.	Building entrance	En
	Facility Mgmt.	Building entrance	En
	Facility Mgmt.	Building entrance	En
Kessler, Diane	IEMS	C Wing, 1st Floor	dkessler@iems.northwestern.edu
Cebulski, Adam	IEMS	C wing, 2nd Floor	a-cebulski@northwestern.edu
Abbott, Beth	IEMS	D Wing, 2nd Floor	b-abbott@northwestern.edu

Nelson, Barry	IEMS	M Wing, 2nd floor	nelsonb@northwestern.edu
Chen, Wei	ME	B wing, 1st floor	weichen@northwestern.edu
Chen, Sun	ME	B wing, 1st floor	c-sun@northwestern.edu
Lichter, Seth	ME	B wing, 1st floor	s-lichter@northwestern.edu
Walker, John	ME	B wing, 1st floor	jwalker@northwestern.edu
Lewis, Elmer	ME	B wing, 2nd floor	<e-lewis@northwestern.edu>
Liu, Chang	ME	B wing, 2nd floor	changliu8888@gmail.com
Peshkin, Michael	ME	B wing, 2nd floor	peshkin@northwestern.edu
Dyess, Pat	ME	B wing, 2nd floor	j-dyess@northwestern.edu
Cao, Jian	ME	B wing, ground floor	jcao@northwestern.edu
Dikin, Dmytro	ME	B wing, ground floor	d-dikin@northwestern.edu
Ehmann, Kori	ME	B wing, ground floor D wing, C 115	k-ehmann@northwestern.edu
Buntin, Robert	Physics	Central Core, grd floor	r-buntin@northwestern.edu
Halperin, William	Physics	F wing, 1st floor	w-halperin@northwestern.edu
Zadeh, Farhad	Physics	F wing, 1st floor	zadeh@northwestern.edu
Dutta, Pulak	Physics	F wing, 1st floor	pducta@northwestern.edu
Updegraff, Emily	Physics	F wing, 2nd floor	e-updegraff@northwestern.edu
Schmidt, Arthur	Physics	F wing, 2nd floor	aschmidt@northwestern.edu
Taylor, David	Physics	F wing, 2nd floor	d-taylor2@northwestern.edu
Ellis, Donald	Physics	F wing, 3rd floor	don-ellis@northwestern.edu
Delach, Paul	Physics	F wing, 3rd floor	PaulDalach2009@u.northwestern.edu
Tabor, David	Physics	F wing, basement	DavidTabor2007@u.northwestern.edu
Rajagopal, Vaishnavi	Physics	F wing, basement	vaishnavirajagopal2013@u.northwestern.edu
Nevirkovets, Ivan	Physics	F wing, ground floor	i-nevirkovets@northwestern.edu
Tilden, Robert	Physics	F wing, ground floor	rntilden@lotus.phys.northwestern.edu
Gannon, William	Physics	L wing, basement	WilliamGannon2008@u.northwestern.edu
Stephani, Don	Research Safety	N wing, ground floor	d-stephani@northwestern.edu
Ward, Wendy	Research Safety	N wing, ground floor	wendyw@northwestern.edu
Barthelme, Ron	Shops	N wing, ground floor	<barthelme@northwestern.edu>
Viani, Ken	Shops	N wing, ground floor	<k-viani@northwestern.edu>

FORD

Hinrichs, Tom	EECS	East, 3rd floor	hinrichs@cs.northwestern.edu
Ghosh, Dev	EECS	East 3rd floor (alternate)	dghosh@northwestern.edu
Thullen, Zach	EECS	West, 3rd floor	zach@eecs.northwestern.edu
Wright, Jill	EECS	West, 3rd floor (alternate)	jwright@eecs.northwestern.edu
Klein, Casey	EECS	East, 2nd floor	clKlein@eecs.northwestern.edu
Nichols, Nathan	EECS	East, 2nd floor (alternate)	n-nichols@northwestern.edu
Tumblin, Jack	EECS	Sub-basement	j-tumblin@northwestern.edu
Bledsoe, Michelle	Co-op	West, 2nd floor	m-bledsoe@northwestern.edu
Brasher, Elizabeth	ITI	East, 1st floor	embrasher@northwestern.edu
Rondeau, Diane	MMM	West, 1st floor	
Jacob, Phillip	IDEA	East, ground floor	pjacob@northwestern.edu
Durance, Katrina	IDEA	West, ground floor	k-durance@northwestern.edu
Taglia, Bob	IDEA	Basement	r-taglia@northwestern.edu
Benjamin, Stacy	IDEA	Basement	s-benjamin@northwestern.edu
Jacobson, Steve	IDEA	Sub-basement	s-jacobson@northwestern.edu
Kim, Yun	BME	Sub-basement	ys-kim@northwestern.edu