

SPECIAL NOTICE: Use 911 for serious injury, fire, explosion, hazardous material release, or suspicious persons. Chemical spills notification should go to 456 and/or 1-5581.

WILLIAM A. AND GAYLE K. COOK HALL
EMERGENCY EVACUATION PLAN

Department of Materials Science and Engineering

Cook Hall houses three clean rooms and many labs where biological and chemical research is carried out. Occupants are expected to learn building safety procedures and to follow the instructions of wardens and safety contacts in any drill or evacuation.

Prepared by the
Cook Hall
Safety Committee

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COOK HALL EMERGENCY EVACUATION PLAN

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I. INTRODUCTION

This is the emergency evacuation plan for William A. and Gayle K. Cook Hall. 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, Research Safety, Facilities Management, and the Evanston Fire Department. In most cases, University Police are likely to arrive first.

This manual provides information you should have to ensure your safety if an emergency occurs for which evacuation is required. 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 group safety contact, safety warden, supervisor or your department's safety committee representative.

For further information on general safety and fire protection, call Risk Management's Division of Safety and Loss Prevention, at 1-3253. For information regarding chemical, biological, or radiation hazards, consult the University's Hazard Communications Program or contact the Office of Research Safety at 1-5581.

II. BUILDING SAFETY ORGANIZATION

The building safety committee is responsible for developing safety policies and procedures that affect all occupants of the building, and it is responsible for ensuring that they are implemented in the 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.

Each department with occupants in the building has a representative on the committee. Facilities Management, the Office of Research Safety, and Risk Management's Safety and Loss Prevention Division have ex officio members. The chairperson is selected by agreement of the deans of the schools occupying the building.

A Building Manager and a Building Manager Alternate are appointed by deans or department heads from among the committee members. These persons function as communication managers during emergencies.

The Building Manager and alternate maintain a telephone tree call list. The telephone tree call list is used to inform building occupants of building evacuations, power failures, or other incidents. This may be especially important for persons who have critical equipment or processes that need attention during the emergency.

III. WHAT TO DO WHEN AN ALARM SOUNDS

Always take alarms seriously. Unless an alarm has been immediately preceded by an announcement that it is a test, you should assume that it is real, and either evacuate the building or standby and prepare to evacuate, as instructed.

In case of power failure, the fire alarm and hazardous materials alarm systems will automatically switch to battery power or emergency generator and will continue to operate.

Alarms are automatically transmitted to the University Police, who will dispatch officers to the scene.

- A. **Fire Alarm.** The fire alarm system is zoned. This means that the zone where a detector is triggered will alarm independently of the other zones.

1. Alarm In Your Zone. If you are in the zone that is in alarm you will hear the following message in a female voice:

"May I have your attention, please. A fire emergency has been reported in the building. While this is being verified, please leave the building by the nearest available exit or exit stairway. Do not use the elevators."

When you hear this message you should do an orderly shutdown of your equipment or processes (provided it does not take more than a few seconds). Close windows, lock doors and leave the building by your primary or alternate evacuation route. Go to your designated rally (meeting) point, and wait for further instructions.

2. Alarm Outside of Your Zone. If you are outside of the zone in alarm you will hear the following message in a male voice:

"May I have your attention, please. A fire emergency has been reported in the building. While this is being verified, please prepare for possible evacuation and stand by for further instructions."

When you hear this message, you should prepare for the orderly shutdown of equipment or processes in anticipation of having to evacuate. Listen carefully to the announcement and leave the building if instructed to do so. Lock doors as you leave.

A word about fire extinguishers: Only NU-trained personnel should use fire extinguishers. 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, University Police 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. Hazardous Materials Alarm.** The cleanroom facilities on the fourth floor and the penthouse have their own Cleanroom Emergency Response Team (CERT) and a hazardous materials alarm which is activated upon sensing specified levels of hazardous gases in those areas. The levels that trigger the alarm are very conservative and an alarm does not mean that there is an imminent threat to health. Outside consultants have determined that floors below the cleanrooms are unaffected by cleanroom incidents. You should always evacuate, however, if instructed to do so.

If the hazardous materials alarm goes off, everyone in the building will hear the following message in a male voice:

"May I have your attention, please. A hazardous materials emergency has been reported on the fourth and fifth floors. Please evacuate the fourth and fifth floors immediately by the nearest exit stairway. All other building occupants should prepare for possible evacuation and stand by for further instructions. Do not use the elevators."

When this alarm sounds, all non-emergency personnel on the fourth and fifth floors should do an orderly shutdown of equipment and processes, descend to the third floor or below and report to their designated meeting point. Wardens will be posted at the stairways. Only those with proper CERT ID's will be allowed on the upper stairs.

In the event that a hazardous materials incident escalates to a more serious level, a general building evacuation alarm will be activated. This notification will be given in the *female* voice. At that point all building occupants should immediately evacuate by the nearest exit stairway and report to their designated meeting point outside Cook.

C. 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. Safety wardens should be informed 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:
- o Directly outside by a door at ground level
 - o Horizontally through fire doors in a corridor
 - o Vertically by stairways

Know your primary and alternate routes. Safety wardens may not be available to direct you to the nearest exit, so you should take responsibility for learning the evacuation routes from your area.

- B. **Elevators and Stairways.** Do not use elevators during emergencies. Use the stairways, which are both means of egress and places of refuge if needed.
- C. **Meeting (Rally) Points.** Once you have left the building you should proceed to your designated meeting point for your group or department.
- D. **Bridges to Hogan, Tech, Pancoe, and Seeley Mudd walkway.** The bridges are not to be used as a refuge. Move across and down to the first floor and on to your rally point. Likewise, don't congregate in the walkway to Seeley Mudd Library. Go all the way into Tech or move outside at SEL.

V. SAFETY WARDENS (a.k.a. "Searchers")

Departments in Cook Hall work together to maintain an effective safety warden program for emergency response. Two safety wardens are appointed for each fire alarm zone in the building by the department in that zone. Two are required so that if one is away the other can perform the warden duties. Safety wardens must be full-time faculty or staff. Safety wardens should be knowledgeable of the general operations and hazards in the building as well as the emergency procedures in their respective zones.

Each warden is provided with a fluorescent armband. If you are a warden, keep it handy and put it on as soon as you become aware of an emergency. The armband identifies the warden as someone who is knowledgeable and available to assist building occupants and emergency responders.

There are special wardens for the cleanroom facilities (on the fourth floor and the penthouse) who are members of the Cleanroom Emergency Response Team (CERT). When CERT members are not engaged in emergency response within the cleanroom and cleanroom support facilities, they function as regular safety wardens for their areas.

General Safety Warden Procedures

When notified of a fire, explosion, hazardous material release, or other hazardous situation requiring emergency response in the warden's zone, the warden should take the following action. At no time should a warden jeopardize his or her own personal safety.

- o Activate the fire alarm if needed.
- o Dial **911** and report the incident. Call Research Safety at **1-5581** if chemical, biological, or radiological materials are involved.
- o Don your armband; sweep your zone and tell all persons to leave the area. Be aware of special needs people.
- o Evacuate your area and meet near the fire command center (Cook 1033) near the loading dock elevators to await further instructions. Alert emergency responders to anyone refusing to leave your area.
- o Assist emergency personnel by providing information about the incident such as its location, origin, and persons who are involved.

Warden Procedure If a Fire Alarm Sounds

- o If the alarm is in your zone, follow the general procedure above.
- o If the alarm is not in your zone, stand by to be of assistance and to activate the alarm in your zone if the threat of fire, spreading smoke, or other circumstances makes it necessary. Be prepared to follow the general procedure above. If both wardens for the area are present, one can report to the fire command center (Cook 1033) for further instructions.

VI. COMMAND POST

If necessary first responders (e.g., UP officers) will establish a command post near the loading dock. A UP officer is the incident commander, responsible for organizing the emergency response and establishing communications.

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

The incident commander will maintain communications and confer with ORS and Facilities Management personnel and with 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 command post.

Available Safety Wardens will wear their armbands and gather 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 meeting points and away from the command post, unless they have information about the incident, which the commander should know.

VII. TERMINATING THE EVACUATION

When the incident commander has conferred with ORS, Facilities Management, CERT, and principal investigators or other knowledgeable persons, as appropriate, and an agreement has been reached that the building is safe for reentry, it will be announced by a person in authority.

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

- o Uniformed UP officers
- o Plainclothes UP officers with badges
- o University Emergency Response Team personnel with photo identification badges.
- o Evanston Fire Department incident commander

These are the only persons who are authorized to announce that it is safe to reenter the building. These persons will inform the safety wardens who are posted at the entrances to the building.

VIII. DRILLS

Training drills will be held annually. Drills will be coordinated between the safety committee and the University Police. Drills help to evaluate the plan, familiarize new occupants with the sound of the alarms and with evacuation routes, and are a training opportunity for safety wardens. Drills will be observed by personnel from the University Police, and they will provide an evaluation to the safety committee.

IX. BUILDING SAFETY FEATURES

- A. **Fire Command Center.** The Fire Command Center is located in room 1033 just west of the southwest stairway (#1). This room contains the main fire alarm control panels, the one- and two-way voice communications system, a ventilation fan status indicator panel, and computer equipment for controlling the fans and accessing the fire alarm system.
- B. **Voice Communication System.** The emergency voice communication system is

controlled from inside the Fire Command Center. From this control center, emergency responders can broadcast a voice message to the whole building or any part of the building.

- C. **Automatic Sprinkler System.** Automatic sprinklers are located throughout the building. Only the head or heads where the temperature reaches the predetermined setting will operate to extinguish a fire. If the sprinkler system is activated it will automatically initiate a fire alarm in the building and transmit it to the University Police.
- D. **Fire Doors.** Fire door assemblies are located between the east and west halves of the building on each floor and at each stairway door. The doors are specially constructed to withstand fire for a specific length of time. Fire doors in corridors will not lock and may be used for egress in emergencies. Marlok-controlled doors in the center of the building will unlock in the event of an alarm after hours.

Never prop open fire doors including stairway doors. Stairways are a place of refuge and a means of egress during a fire and the doors must not be propped open. Stairway doors are required to automatically close and latch.

(See description on p. 12)

- E. **Emergency Telephones.** Yellow emergency telephones are located in the hallways near each safety shower and in the penthouse near the east stairwell. These telephones are to be used only in an emergency. Pushing the red button activates the phone and opens the line directly to the University Police.
- F. **Manual Pull Stations.** Pull down to activate evacuation alarm. This will sound an alarm and immediately send an emergency signal to UP. After activating the alarm, call UP from a safe location to provide additional information. Stay on the line until they have all the information needed.
- G. **Safety Showers.** Checkered patterns in the hallway floors indicate safety showers. Know the location of the nearest one to your lab. Washrooms are also equipped with safety showers.
- H. **Eye Washes.** Every lab should have an eye wash station reachable within 10 seconds. Eye washes should be flushed monthly.
- I. **First Aid Kits.** Each lab should have a first aid kit sufficiently stocked to deal with minor injuries that do not require medical attention.

X. POWER FAILURE

It is strongly recommended that the building be evacuated during a general power failure.

When power fails, there is an unavoidable delay of from 12 seconds to one minute while the emergency generator starts up. The building will be in darkness during that time. The emergency lighting will turn on after the delay. Select laboratories have battery powered emergency lights that will turn on immediately when a loss of power is sensed. When the emergency lighting comes on, do an orderly shutdown of equipment and processes, close chemical containers, fume hood sashes, and gas cylinders, and leave the building.

The ventilation system will fail, including fume hood airflow. The chemical fume hood warning devices are not on emergency power and will not go into alarm. **Stop work and close hood sashes completely.**

In the cleanroom, a power failure will cause the gas cabinets to automatically shut down, terminating the gas flow. The toxic gas and hydrogen monitoring systems will continue to operate. The exhaust fans for the cleanroom equipment are on emergency power and will continue to operate.

Water pressure for eyewashes, and safety showers is normally increased by a booster pump. During a power failure these safety features will not operate normally and should not be depended upon.

The emergency telephones in the corridors will continue to operate.

The NU telephones are on an independent circuit and will continue to operate during a power failure.

The fire alarm system will continue to operate. The fire control panel is on an uninterruptable power supply. The public address system will continue to be operational.

Elevators will generally not be operational. Do not use.

XI. BOMB THREAT

If you receive a telephoned bomb threat, take it seriously, but remain calm. Keep the caller on the line as long as possible, and try to get as much information as possible from the caller, such as a description of the bomb, its location, how it works and what time it is set to go off. Also, make note of the quality of the caller's voice and any background noises, such as other voices, traffic, music, etc.

If a written bomb threat is received by mail, note, or from a person, do not handle the message. Handling it could mar fingerprints or other evidence.

Immediately after receiving a bomb threat, notify **911**. Emergency personnel will then take charge and decide whether evacuation of the building is warranted.

If you find a suspicious package or suspected explosive device, do not touch it. Clear everyone from the room or immediate area and call the University Police. They will order further evacuation if necessary and coordinate removal of the package or device.

XII. 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.

A *tornado watch* is when conditions are favorable for tornadoes. You may continue normal activities but have someone monitor the radio and notify others if conditions deteriorate.

A *tornado warning* is when a tornado has been sighted and we are in its path. Seek shelter immediately. If you are inside the building go to an interior hallway or other enclosed area on the lower floors and away from windows. If you are outside or in a vehicle, seek shelter.

In the event there are injuries, give first aid and alert **911** as soon as possible.

XIII. COOK HALL FIRE ALARM

Sequence Of Operations

The Fire Alarm system has 2 messages: 1) Evacuation ("A fire emergency has been detected in the building - Please evacuate using the stairs; do not use the elevators"); 2) Alert ("A fire emergency has been reported in the building - Please stand by for further instructions). Each device will cause the evacuation of a specific area of the building. All areas not receiving the evacuation message receive the alert (stand-by) message. The evacuation message is routed as follows:

- 1) Any manual pull station will evacuate the entire building.
- 2) Any smoke detector or heat detector will evacuate the floor of incidence, the floor above and floor below, in the **wing** involved, except for certain detectors in the central lobby corridors, which will evacuate the entire building.
- 3) Any second smoke or heat detector will evacuate the entire building.
- 4) Any sprinkler water flow will evacuate the entire **floor** involved.
- 5) Any standpipe (hose) water flow will evacuate the entire **wing** involved.
- 6) Duct detectors in the supply fans will evacuate the entire **wing** involved and shut down the respective fan unit.
- 7) Smoke detectors in front of each elevator, and heat detectors in the elevator shafts and elevator equipment rooms, will not only alarm the building as described above, but also recall their respective elevators. The west passenger elevator and the freight elevator function together. The loading dock elevator functions in a similar manner.
- 8) Fire doors on each floor are controlled by the adjacent smoke detectors only.
- 9) Any fire alarm device (automatic or manual) in a "Clean Room" lab will not only cause evacuation as described above, but will also de-energize door locks, shut down the hydrogen gas generator, shut down the supply fan and make-up air unit, close the toxic gas supply valves and activate the red strobes and alarm horns in the lab involved.
- 10) Marlok-controlled entry doors to the east side of the building on the second, third and fourth floors, and to the northeast stairwell (Stair #3), will unlock on any alarm.

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