Northwestern Emergency Evacuation Planning and Exercises Environmental Health and Safety

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I. Purpose

The purpose of this program is to ensure the safety of Northwestern faculty, staff, students, and visitors when campus buildings may no longer be safe to occupy.

II. Scope

This program applies to all Northwestern faculty, staff, students, and visitors who occupy Northwestern-owned buildings. This program applies to emergencies such as fires and chemical spills that render campus buildings unsafe to occupy but does not apply to situations such as active violence or natural disasters. Refer to Northwestern <u>Emergency Management</u> for more information.

III. Responsibilities

A. Environmental Health and Safety (EHS)

- i. Adhere to the requirements of this program.
- ii. Update this program, as necessary.
- iii. Support individual school and unit evacuation plan development and training, as necessary.
- iv. Provide or facilitate evacuation training.
- v. Facilitate emergency evacuation exercises with Facilities Operations, Residential Services, and other school and unit stakeholders, which may include the formation of evacuation committees.
- vi. Maintain overall authority of emergency evacuation exercises.
- vii. Maintain communication with University Police and local fire departments regarding all emergency evacuation exercise fire alarm activations.
- viii. Identify corrective actions after emergency evacuation exercises through engagement surveys, and route corrective actions to appropriate parties for remediation.
- ix. Provide consultation and guidance to schools and units, as necessary.

B. Evacuation Committees

- i. Adhere to the requirements of this program.
- ii. Participate in and support emergency evacuation planning and exercises at the direction of EHS.
- iii. Coordinate emergency evacuation exercises to minimize operational disruption.

C. Facilities Operations

- i. Adhere to the requirements of this program.
- ii. Test fire alarm systems at least annually and more frequently, as necessary (e.g., renovation projects).
- iii. Participate in emergency evacuation planning and exercises, at the direction of EHS.
- iv. Operate fire alarm systems and other related systems to support emergency evacuation exercises.
- v. Reset systems and utilities (e.g., natural gas, manual call points, fire doors, dampers) as necessary following exercises.
- vi. Support emergency responders (e.g., police, fire department) by providing technical information (e.g., utilities, systems) associated with the emergency.

D. Faculty, Staff, Students, and Visitors

- i. Adhere to the requirements of this program.
- ii. Be familiar with <u>general evacuation procedures</u>, any school- or unit-specific procedures, and designated assembly areas.
- iii. Participate in emergency evacuation exercises (i.e., evacuate the building upon alarm activation and proceed to the designated assembly area).
- iv. Attend all required training (refer to **Section VII Training**).
- v. Must never put themselves in danger when evacuating or attempting to assist others.
- E. Individuals (e.g., PIs) responsible for areas with hazardous materials, processes, or equipment (e.g., labs)
 - i. Adhere to the requirements of this program.
 - ii. Develop and maintain specific hazardous processes, equipment, or chemical emergency shutdown procedures to employ when evacuating the area to minimize hazards and damage (Refer to **Section IV.E**).
 - iii. Support emergency responders (e.g., police, fire department) by providing technical and hazard information if the emergency is in their area of responsibility.

F. Schools and Units

- i. Adhere to the requirements of this program.
- ii. Participate in and support emergency evacuation planning and exercises, at the direction of EHS.
- iii. Maintain any building- or area-specific evacuation plans by performing annual reviews and updates.
- iv. Communicate evacuation plans to new and affected occupants whenever there are changes and at least annually.
- v. Consult EHS for any new or updated building- or area-specific evacuation plans for EHS review and approval.
- vi. Encouraged to assign at least two wardens per work area or floor (refer to **Section III.G. Wardens**).
- vii. If occupants are known or presumed to require rescue assistance in the event of an emergency evacuation, ensure those occupants are informed of the location of the designated areas of rescue assistance (refer to **Section IV.D**).

G. Wardens

- i. Adhere to the requirements of this program.
- ii. Understand the building alarm system and know all exit points, exit paths, and assembly areas for the assigned area or floor.
- iii. Communicate evacuation plans to occupants in the assigned area or floor in accordance with **Section III.F.iv**.
- iv. Know the location of the designated areas of rescue assistance (e.g., stairwells) and inform individuals who may need rescue assistance (Refer to **Section IV.D**).
- v. During an evacuation:
 - 1. Must never put themselves in danger when evacuating or attempting to assist others.
 - 2. Ensure individuals needing rescue assistance are accounted for and in the designated area of rescue assistance.
 - 3. Stay calm and encourage occupants to evacuate the area using the designated paths (e.g., stairwells) and to not use the elevators, while evacuating themselves.

4. Inform emergency responders as soon as possible of any known individuals who might still be inside the building, their location, and any other relevant information.

IV. Emergency Evacuation Plans

- A. All buildings are required to have an emergency evacuation plan, which must be communicated to occupants whenever there are changes and at least annually.
- B. Schools and units may use the <u>General Evacuation Plan</u> or develop more comprehensive building- or area-specific evacuation plans to address unique building characteristics and operational needs.
- C. School- or unit-specific emergency evacuation plans must:
 - i. Meet the minimum requirements of, and not conflict with, the General Evacuation Plan,
 - ii. Be reviewed and approved by EHS,
 - iii. Be reviewed and updated annually and after an exercise,
 - iv. Be communicated to all affected occupants at least annually and whenever there are changes to the plan, and
 - v. Be available to all occupants.
- D. Rescue Assistance

Individuals with mobility impairments may not be able to exit a building without help from emergency response personnel since elevators must not be used. Individuals who are unable to evacuate using stairwells should await evacuation assistance in designated rescue locations.

- i. Certain buildings have *designated areas of rescue assistance* (e.g., stairwells), which are identified with signage and an emergency call box.
- ii. For buildings that do not have designated areas of rescue assistance, individuals can proceed to an area with proper shelter as far from the threat as possible, such as an office or conference room with an operable door, window, telephone for calling 911, and, if feasible, with sprinkler protection and below the 5th floor of the building to facilitate fire department ladder access.
- iii. Individuals with mobility impairments are encouraged to work with their supervisor, building manager, resident director, or similar individuals to establish a plan, identify areas of rescue assistance, and inform others in the area who may be able to assist. Contact <u>ehs@northwestern.edu</u> for additional assistance.
- E. Areas with hazardous materials, processes, or equipment (e.g., labs) must develop and maintain specific critical equipment and process emergency shutdown procedures to employ when evacuating the area to minimize hazards and damage.
 - i. Procedures must be reviewed and updated annually and whenever there are changes to equipment or processes that would alter the shutdown sequence.
 - ii. Procedures must be communicated to individuals in the area at least annually and whenever there are changes to the procedures.
- F. A diagram depicting two evacuation routes (i.e., evacuation route maps) must be conspicuously posted:
 - i. On, or immediately adjacent to, each sleeping unit or dwelling unit egress door,
 - ii. In common areas (e.g., elevator lobbies) of campus buildings on all floors, and

iii. In assembly halls, auditoriums, classrooms with a capacity of over 50, exhibition halls, gymnasiums, libraries, museums, places of worship, pool rooms, restuarants, and theaters.

V. Building Evacuation Alert Methods

A. Chicago campus buildings or floors are designated as high-rise, school, or mixed, depending on the occupancy type, which determines how buildings or floors are evacuated in an emergency (see **Appendix 1**).

i. High-Rise Designation

Fire alarms are initially silent. The Chicago Fire Department is dispatched and will determine which floors to evacuate based on the nature of the emergency. Evacuation instructions are provided utilizing the voice annunciation and visual alert system.

ii. School Designation

An audible and visual fire alarm will alert building occupants to evacuate the building. The Chicago Fire Department is dispatched.

- iii. Mixed (High-Rise and School) Designation Floors identified as a school will adhere to the school designation, and floors identified as a high-rise will adhere to the high-rise designation. The Chicago Fire Department is dispatched.
- B. All Evanston campus buildings are evacuated by an audible and visual fire alarm to alert occupants to evacuate the building. The Evanston Fire Department is dispatched.
- C. Fire alarm systems are tested at least annually and more frequently, as necessary (e.g., renovation projects).

VI. Emergency Evacuation Exercises

Emergency evacuation exercises are routinely conducted at select buildings on the Chicago and Evanston campuses to ensure fire alarm equipment and procedures are effective.

A. Evacuation Exercise Frequency

Building Type	Frequency
Theaters ¹ , Sports Complexes ² , Libraries ³ , and Hotels ⁴	Annual
Residence Halls, Graduate Housing, Fraternities, and Sororities	Quarterly⁵
Academic and Professional Buildings ⁶	Annual
Evanston Campus Science Buildings ⁷	Annual
Chicago Campus Buildings ⁸	Annual

¹Block Gallery, Wirtz, Ryan Center, Pick-Staiger

²Henry Crown, Trienens, Ryan Walter Athletics Center

³Deering, University Library

Wieboldt, Tarry, and Rubloff

⁴Allen Center

⁵The first exercise must occur within the first ten days of the school year

⁶Buildings with an occupant load of 500 or more persons, or more than 100 persons above or below the lowest level of exit discharge (i.e., North Campus Academic Building, Jacobs, Norris, 1800 Sherman, Kresge/Crowe, 1201 Davis, 2020 Ridge, Rebecca Crown, Fisk, McCormick Foundation, Regenstein, Student Health, and Kellogg Global Hub) ⁷Technological Institute, Ford, Pancoe, Hogan, Silverman, Ryan Hall, 1801 Maple, Catalysis, Cook, Mudd ⁸Abbott, Ward, Searle, Morton, Lurie Research, 345 E. Superior St., Simpson Querrey, Gary Coon, Levy Mayer, McCormick,

- B. Evacuation Exercise Planning
 - i. EHS coordinates evacuation exercises with stakeholders as necessary (e.g., building managers, Facilities Operations, Residential Services, University Police, and local fire departments).
 - ii. Exercises are planned in advance to minimize operational disruption and are typically avoided in the winter months due to the hazards associated with low temperatures, snow, and ice.
 - University Police Communications must be notified in advance of the location, date, and time of all planned evacuation exercises (<u>dl_nupd_co@e.northwestern.edu</u>).
 - iv. Evacuation exercises are typically unannounced to the general building population to preserve the effectiveness of the exercises.
 - v. Schools and unit representatives are encouraged to use careful discretion in sharing evacuation exercise details only as necessary (e.g., impact on sensitive or critical operations).
- C. Evacuation Exercise Execution
 - i. EHS will assemble all involved supporting personnel (i.e., the evacuation team) at the building and conduct a risk assessment to ensure no hazards (e.g., inclement weather) or conditions that may impact the effectiveness or safety of the exercise are present. Exercises may be postponed, rescheduled, or canceled at the discretion of EHS.
 - ii. EHS will notify University Police, the local fire department, and any other relevant stakeholders (e.g., building managers at nearby buildings) that the exercise will be commencing.
 - iii. The evacuation team will strategically position at building egress points and maintain constant communication (e.g., radio).
 - iv. EHS will authorize Facilities Operations to activate the alarm, which may include disabling or bypassing certain features of the normal alarm and notification sequence.
 - v. During the exercise, the evacuation team will direct evacuees to the designated assembly areas and monitor the exercise. Careful consideration must be given when evacuation paths cross areas with vehicular traffic, such as roadways and parking lots.
 - vi. When the building is determined by EHS to be evacuated, EHS will authorize Facilities Operations to silence and reset the alarm.
 - vii. Facilities Operations will reset necessary systems and utilities (e.g., natural gas, manual call points, fire doors, dampers).
 - viii. Once Facilities Operations confirms the alarm is reset and operational, EHS will alert the evacuation team that the exercise is complete, at which point the evacuation team can alert evacuees at the designated assembly area that the exercise is over.
 - ix. EHS will notify University Police, the local fire department, and any other relevant stakeholders that the exercise is complete.
- D. Post-Evacuation Exercise
 - i. Immediately following the exercise, the evacuation team will reconvene on-site to discuss the exercise and any opportunities for improvement.
 - ii. EHS will document the evacuation exercise details (see Section VIII).

- Engagement surveys will be distributed to building occupants to solicit feedback to evaluate the effectiveness of the exercise and identify opportunities for improvement.
- Survey results will be analyzed to determine if any corrective actions are warranted. If so, corrective actions will be appropriately routed for remediation (e.g., Facilities Operations, building managers).

VII. Training

This written program and exercises serve as the primary training methods for emergency evacuations. Supplemental, online presentations providing campus- and building-specific evacuation training are available on the <u>Building Evacuation</u> website. Schools and units may contact EHS at <u>ehs@northwestern.edu</u> for additional training, if necessary.

Quarterly emergency evacuation training is required at the following Evanston campus buildings: Block Gallery, Wirtz, Pick-Staiger, Cahn, Ryan Center, Henry Crown, Trienens, Patten, Blomquist, Ryan Walter Athletics Center, Deering, University Library, Allen Center, and Alice Millar/Parkes Hall.

VIII. Recordkeeping

- A. EHS maintains evacuation exercise documentation including the date, time, location, whether it was announced or unannounced, estimated number of evacuees, time to evacuate the building, whether the exercise was satisfactory, corrective actions, and observations. Records must be kept for at least 7 years.
- B. EHS maintains training records for the duration of each employee's employment.
- C. Schools, units, and departments will maintain, and make available upon request, the most recent version of any specific procedures.

IX. Regulatory Authority and Related Information

Northwestern will comply with the Occupational Safety and Health Administration's (OSHA) standards, National Fire Protection Association's (NFPA) codes, International Fire Codes, and any other applicable codes and standards, including:

NFPA 1 – Fire Code, Chapter 10 and 20 NFPA 101 – Life Safety Code, Chapter 4 and 11 <u>City of Chicago Code</u> 2021 International Fire Code, Chapter 4 <u>OSHA 29 CFR 1910.38 – Emergency Action Plans</u> <u>Northwestern Design Guidelines</u>

X. Contact

For questions contact Environmental Health and Safety at <u>ehs@northwestern.edu</u> or (847) 467-6342.

Appendix 1 – Chicago Campus Building Designations

Building(s):	Floor(s):	Designation:	Evacuation Activated by:
Abbott Hall, Ward Memorial Building, Searle Medical Research Building, Morton Medical Research Building, Lurie Research, 345 E. Superior St., Simpson Querrey Biomedical Research Center	All floors	High-rise	Chicago Fire Department (voice annunciation and visual alert)
Gary Coon Law Library, Levy Mayer Hall, McCormick Hall, Wieboldt Hall	All floors	School	Audible horns and visual strobes
Tarry Research and Education Building	1-17	High-rise	Chicago Fire Department (voice annunciation and visual alert)
	Basement	School	Audible horns and visual strobes
ubloff Building	Basement-4	School	Audible horns and visual strobes
	5-12	High-rise	Chicago Fire Department (voice annunciation and visual alert)