Fire Prevention
I. Purpose
The purpose of this Fire Prevention program is to ensure the safety of the University community by identifying and reducing potential fire hazards and maintaining fire control equipment.

II. Scope
This program applies to all Northwestern staff, faculty, students and contractors.

III. Responsibilities
A. Managers and Supervisors
   i. Ensure this program is implemented within their areas of responsibility
   ii. Ensure all staff are aware and adhere to this fire prevention program
   iii. Ensure any fire prevention program deficiencies identified by Risk Management or other authority having jurisdiction are corrected in a timely manner.

B. Residential Services
   i. Ensure students are aware of prohibited heat producing items and accepted locations for approved heat producing items. Refer to Residence Hall Policies and procedures for details on the policy.
   ii. Conduct life safety and fire prevention inspections in sleeping rooms and ensure any deficiencies are addressed
   iii. Ensure life safety and fire prevention deficiencies identified by Risk Management or other authority having jurisdiction are corrected in a timely manner.

C. Fraternity and Sorority Residence Directors
   i. Ensure residents are aware of prohibited heat producing items and accepted locations for approved heat producing items. Refer to the student handbook for details.
   ii. Conduct life safety and fire prevention inspections in sleeping rooms and ensure any deficiencies are addressed
   iii. Ensure life safety and fire prevention deficiencies identified by Risk Management or other authority having jurisdiction are corrected in a timely manner.

D. Risk Management
   i. Conduct and document building inspections in all University owned buildings.
   ii. Review and revise this program to reflect changes in regulatory requirements as necessary.
   iii. Provide consultation and guidance when necessary.

E. Facilities
   i. Regularly maintain fire alarm and suppression systems equipment.
   ii. Correct any life safety action items identified from a Risk Management inspection, or other authority having jurisdiction.

F. Contractors
   i. Contractors shall provide fire extinguishers in construction areas.
   ii. Contractors shall remove all trash and refuse from worksites daily.
   iii. Ensure this program is implemented within their areas of responsibility.
iv. Ensure all employees and subcontractors are aware and adhere to this fire prevention program
v. Ensure any fire prevention program deficiencies identified by Risk Management or other authority having jurisdiction are corrected in a timely manner

IV. Fire/Building Inspection Program

A. Frequency
    a. All occupied University owned buildings shall be inspected at least annually by a representative from Risk Management.
    b. A 90-day follow up inspection will be conducted to verify deficiencies are corrected. A shorter corrective action time period may be specified due to the severity of concerns or a longer period of time is necessary because of operational considerations. Longer corrective action periods must be agreed upon with Risk Management.

B. Procedure
    a. Building inspections are typically unannounced, unless inspecting sorority and fraternity residences.
    b. Any safety concerns or deficiencies are documented and corrective actions are communicated via email to Facilities, the building manager, or other designated person(s).
    c. Each department shall ensure that safety concerns or deficiencies are corrected, or a documented plan to correct deficiencies within 90 days or other pre-approved time frame.

C. Progressive Resolution Process
    Departments failing to correct safety concerns or deficiencies not corrected within established time periods, a non-compliance notice will escalate through the direct reporting hierarchy informing the department of the unresolved issues.

D. Outside Regulatory Agencies
    Outside regulatory agencies and insurance representatives requesting to inspect University owned properties or review components of Northwestern’s safety program in order to determine compliance with regulations and requirements shall be directed to Risk Management.

E. Trend Analysis
    All inspections shall be tracked in Risk Management’s building inspection software. Data collected shall be used to determine the number of corrective actions identified, and completion of corrective actions within 90 days as key performance indicators.
V. Small Electrical Appliances and Equipment
A small appliance is a portable machine, generally used on table-tops and counter-tops, or surface to accomplish household tasks. Examples include hot plates, microwave ovens, toasters, toaster ovens, fans, lamps, electric kettles, coffee makers, air purifiers and (de)humidifiers.

A. University offices: Microwave, hot plates, coffee makers, toaster ovens, toasters and refrigerators larger than 3 cubic feet are prohibited.
B. Sleeping rooms: Microwaves, hot plates, toaster ovens or any cooking or heating of food or beverages are prohibited in sleeping rooms. Other heat producing appliances such as irons may not be used in sleeping rooms. Refrigerators with interiors larger than three cubic feet are prohibited.
C. Small appliances must be housed in University kitchens, pantries or break rooms with designed for such use.
D. Small electrical appliances must be approved by a national recognized testing laboratory such as Underwriters Laboratories
E. All electrical appliances such as coffee makers, microwaves, refrigerators and toasters must be plugged directly into a wall outlet. The use of extension cords to power such appliances is prohibited.
F. Keep all electrical appliances at least 3 feet away from combustible materials.
G. All electrical appliances must be turned off and unplugged the end of each day or when not in use.
H. Appliances shall be grounded (equipped with three pronged cord) or be clearly labeled as “double insulated”. The case or body of the appliance shall be intact with no cracks, chips or broken and there shall be no exposed metal parts or exposed wires.

VI. Space Heaters
Space heaters are prohibited in all University owned spaces. In the event of temperature related emergencies, space heaters maybe used temporarily. Departments must obtain approval from Facilities Operations and Risk Management prior to purchasing or operating a space heater. If the department has received approval to use a space heater; space heaters must meet the following requirements

A. Use only electric space heaters with water/oil fluid enclosed heating elements or ceramic covered heating elements which provide radiant heat.
B. Keep Space heaters three feet from combustible materials including waste baskets, furniture, coat racks, drapery and other upholstered materials.
C. Space heaters must not be placed in areas where flammable or explosive vapors may be potentially found.
D. Tip switches that turn off the space heater if not upright.
E. Space heaters shall be Underwriter Laboratories (U.L.) approved (or other nationally recognized testing laboratory)
F. A properly working thermostat with overheat protection to automatically shut off in the event of overheating to automatically shut off.
G. An on/off switch, with an “on” indicator light or some other apparent way of determining that that the space heater is “on”.
H. Space heaters shall have functional tip over protection (i.e., space heater shall turn off automatically if tipped over);
I. Space heaters shall plug directly into an electrical outlet, the use of extension cords connected to space heaters is prohibited.
J. Space heaters shall always be turned off and unplugged when not in use and shall not be left running unattended.

VII. Extension Cords and Power Strips
A. Extension cords and power strips shall be designated as approved by a nationally recognized testing laboratory, labeled and used within the manufacturer’s guidelines.
B. Industrial/commercial grade equipment, power tools and other high-current devices may not be plugged into power strips or extension cords unless they are designated as approved with a NRTL mark for industrial/commercial use. The use of household extension cords (two-prong) and non-multi-plug adapters are prohibited.
C. Extension cords and power strips must be plugged into a wall outlet may not be plugged into another extension cord or power strip (i.e. daisy chaining).
D. Extension cords may never be used in place of permanent wiring and may only be used for a temporary period of up to 90 days. Extension cords shall be unplugged when not in use.
E. Extension cords and power strips that have a ground pin may only be plugged into grounded outlets. Devices that have a ground pin may only be plugged into extension cords and power strips that accept ground pins. Do not remove the ground pin from the plug of the device or the extension cord or power strip.
F. Ensure extension cords do not have cuts, nicks or exposed wiring. Remove from service immediately if observed.
G. Ensure cords are not running under carpeting or under doorways.

VIII. Open Flames and Heat Sources
A. The use of open flames inside University owned buildings is prohibited, unless the area is designated as such (i.e. research laboratory, metal shop, and kitchen).
B. Open flames (burners, ovens) in labs should be kept in hoods or clear of any combustible/flammable material when not in a hood. See the Office of Research safety General lab safety for more detailed information.
C. No employee of the University, contractor or subcontractor shall perform any hot work unless a hot work permit is obtained and approved by Northwestern University Facilities (refer to the University’s Hot Work Permit Program).
D. Variances may be provided under certain circumstances, such as during the religious ceremonies such as sage burning, approval must be obtained from Risk Management in advance.
E. Smoking is prohibited in University owned buildings.
F. In designated cooking areas, when cooking on a stove or using a microwave, never leave the area unattended. Always ensure the appliance is turned off when finished.

IX. Outdoor Grilling
A. Grills shall not be used in areas that serve as a means of egress.
B. Follow the manufacturers or owners guide for safety guidelines and safe operation.
C. A portable fire extinguisher shall be located in close proximity to the grill, but not affixed to the grill. The fire extinguisher shall be at least a 10 pound ABC type fire extinguisher.
D. Hot ashes or cinders shall be deposited into non-combustible receptacles free of all combustible materials and away from combustible construction.

X. Compressed Gas Storage
A. Storage of liquefied petroleum gas cylinders are prohibited in University owned buildings.
B. Store compressed gas cylinders away from vehicular traffic, excessive heat and electrical circuits.
C. Keep oxygen cylinders at least 20 feet from fuel gas cylinders.
D. Secure cylinders upright and secured to prevent from falling with a chain or securing to a cart.
E. Compressed gas cylinder, containers and tank valves must be protected from physical damage by means of protective caps, collars, or similar devices.

XI. Events and Catering
A. The department hosting the event shall ensure that all of the general safety items in this section are followed, including
   1. Event occupancy cannot exceed pre-approved occupancy limits as identified by the Authority Having Jurisdiction.
   2. Ensuring that the caterer is aware that it shall supply and ensure fire extinguishers are available.
   3. Catering managers must ensure that all staff have attended their organizations fire extinguisher training
   4. Ensuring that personnel in charge of site catering operations are familiar with the location of the closet fire alarm pull station and with the procedures for summoning emergency assistance.
   5. Ensure exits remain unobstructed and provide clear access at all times during the event, including tent and courtyard exits.
   6. Banners and informational material shall not block any emergency safety equipment such as fire alarm panels, pull stations, stairs, smoke detectors, hoses, fire extinguishers, exit signage and exit paths.
   7. Table and chair set-up arrangements that may interfere with exits shall be reviewed by Risk Management
B. Small heat sources such as solid alcohol burning devices (e.g. Sterno gel fuel) is allowed in public spaces, provided that the devices are attended to while a flame is present. The use of solid alcohol burning devices is prohibited in non-approved areas such as offices and residence hall sleeping rooms.
C. Any outdoor events that require a tent must be inspected by Risk Management prior to hosting the event.

XII. Smoking
Smoking, including the use of electronic cigarettes and vaping, is prohibited in Northwestern University and within 25 feet of building entrances, as well as in designated outdoor facilities.

XIII. Flammable Liquids
A. Flammable liquids must be stored in approved containers.
B. Not more than 60 gallons of category 1, 2 or 3 flammable liquids and not more than 120 gallons of category 4 flammable liquids shall be stored in a single approved flammable liquid storage cabinet.
C. Do not store flammable liquids near exits, stairs or any common path of exiting.
D. Ensure adequate precautions are taken to prevent the ignition of flammable vapors. Sources of ignition include but are not limited to open flames, lightning, smoking, and cutting and welding hot surfaces, frictional heat, static, electrical and mechanical sparks, spontaneous ignition, including heat-producing chemical reactions and radiant heat.
E. Flammable liquids (Category 1, 2, or 3) with a flashpoint below 100 deg F, shall not be dispensed into containers unless the nozzle and container are electrically interconnected. Where the metallic floorplate on which the container stands while filling is electrically connected to the fill stem or where the fill stem is bonded to the container during filling operations by means of a bond wire.

XIV. Storage of Combustible Materials
A. Reduce excess storage. Ensure excess garbage, such as empty boxes and waste paper cans, are properly removed and disposed of.
B. Keep paper/plastic away from ignition sources.
C. Storage should be kept in designated areas (rooms, cabinets etc) away from egress paths and doors.
D. Storage should be at least 36” away from any electrical panel, cabinet, water heater, boiler or any potential heat creating device.
E. All storage should be at least 18” below the ceiling of any building with sprinklers to allow for effective activation if there is a fire.
F. Do not store materials in mechanical rooms.
XV. Tents
A. The tent/canopy shall be composed of flame-resistant material or shall be treated with a flame retardant. The tent/canopy should have an affixed label.

B. Portable ABC fire extinguishers shall be provided in conspicuous locations and mounted. 10 pound or K-Type extinguisher
C. Tents where cooking is performed shall be a minimum of 20 feet from all other tents and must be approved for use by the Fire Prevention Bureau.
D. Equipment used for cooking shall be vented to the outside and equipped with spark arrester (when required). Vents/Flues shall be a minimum of 12 inches from the tent.
E. Outdoor cooking shall be performed a minimum of 20 feet from tents.
F. Cooking and heating equipment shall be a minimum of 10 feet from exits or combustible materials
G. LP-gas containers less than 500 gallons shall be a minimum of 10 feet from tents. LP-gas containers greater than 500 gallons shall be a minimum of 25 feet from tents.
H. Flammable/Combustible liquids shall be stored outside in an approved manner a minimum of 50 feet from tents
I. Refueling of flammable-liquid-fueled equipment shall be done a minimum of 20 feet from tents.
J. Generators and similar items shall be a minimum of 20 feet from tents.
K. Multiplex power strip with surge protection or temporary wiring approved by the fire code official shall be used.
L. Electric heaters shall be labeled; and be connected to electricity by a cable suitable for outside use and sufficient size to handle the load.
M. Floors within tents and the ground outside tents within a 30-foot perimeter shall be kept clear of combustible waste.
N. Smoking shall not be permitted in tents.

XVI. Fire control equipment
A. Fire alarm system
All academic and residential buildings have a fire alarm system. If there is smoke from a fire, it will notify emergency response of a fire alarm. Once activated building occupants are expected to evacuate the building.

B. Sprinkler system
Sprinkler systems are installed in many but not all of our University buildings. These systems are designed to contain a fire if activated. Once activated, the sprinkler system will activate the fire alarm and also notify emergency response.

C. Fire extinguishers
Fire extinguishers are located throughout University buildings. Extinguishers are designed to extinguish a small beginning stage fire by building occupants. Training for fire extinguishers is recommended and available for University affiliated individuals. Contact Risk Management for additional details or to schedule fire extinguisher training.
XVII. Regulatory Authority and Related Information

NFPA 55 Compressed Gasses

City of Evanston Title 4 Building Regulation, Chapter 4 Fire Prevention Regulations

XVIII. Contact
For questions, contact Gwen Butler, Director, Environmental Health and Safety, at 847-491-4936 or gwen.butler@northwestern.edu.