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I. Purpose
The purpose of this program is to ensure the safety of the Northwestern 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 program.
   iii. Ensure any 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 the Residence Hall Policies and Procedures for additional details).
   ii. Conduct life safety and fire prevention inspections in sleeping rooms, and ensure any deficiencies are addressed.
   iii. Ensure any 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 any 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 Northwestern-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 by Risk Management inspections or other authority having jurisdiction.

F. Contractors
   i. Contractors must provide fire extinguishers in construction areas.
   ii. Contractors must 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 program.
   v. Ensure any deficiencies identified by Risk Management or other authority having jurisdiction are corrected in a timely manner.
IV. Fire/Building Inspection Program

A. Frequency
   i. All occupied Northwestern-owned buildings must be inspected at least annually by a representative from Risk Management.
   ii. A 90-day follow-up inspection will be conducted to verify deficiencies are corrected. A shorter corrective action timeframe may be specified due to the severity of concerns, or a longer timeframe may be necessary due to operational considerations; longer corrective action periods must be agreed upon with Risk Management.

B. Procedure
   i. Building inspections are typically unannounced, except for sorority and fraternity residences.
   ii. Any safety concerns or deficiencies are documented and corrective actions are communicated via email to Facilities, the building manager, or other designated person(s).
   iii. Each department must ensure safety concerns or deficiencies are corrected, or a documented plan to correct deficiencies within 90 days or other pre-approved timeframe.

C. Progressive Resolution Process
   Departments failing to correct safety concerns or deficiencies not corrected within established timeframes will receive a non-compliance notice, which 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 Northwestern-owned properties or review components of Northwestern’s safety program in order to determine compliance with regulations and requirements must be directed to Risk Management.

E. Trend Analysis
   All inspections must be tracked in Risk Management’s building inspection software. Data collected will 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 tabletops, countertops, or other surface to accomplish household tasks (e.g., hot plates, microwave ovens, toasters, toaster ovens, fans, lamps, electric kettles, coffee makers, air purifiers, (de)humidifiers).
   A. In Northwestern offices, microwaves, hot plates, coffee makers, toaster ovens, toasters, and refrigerators larger than 3 cubic feet are prohibited.
   B. In sleeping rooms, microwaves, hot plates, toaster ovens, or any cooking or heating of food or beverages are prohibited. Other heat-producing appliances (e.g., 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 Northwestern kitchens, pantries, or break rooms that are designed for such use.
   D. Small, electrical appliances must be approved by a nationally recognized testing laboratory (i.e., Underwriters Laboratories).
E. All electrical appliances (e.g., 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 must be grounded (i.e., equipped with a three-pronged cord) or clearly labeled as “double insulated.” The case or body of the appliance must be intact with no cracks, chips, or broken parts, and there can be no exposed metal parts or wires.

VI. Space Heaters

Space heaters are prohibited in all Northwestern-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, they must meet the following requirements:

A. Use only electric space heaters with water/oil fluid-enclosed heating elements or ceramic-covered heating elements that provide radiant heat.

B. Space heaters must be kept three feet from combustible materials (i.e., waste baskets, furniture, coat racks, drapery, and other upholstered materials).

C. Space heaters cannot be placed in areas where flammable or explosive vapors may be potentially found.

D. Space heaters must have:
   i. Tip switches that turn off the space heater if not upright;
   ii. A properly working thermostat with overheat protection that automatically shuts off in the event of overheating.
   iii. An on/off switch, with an “on” indicator light or some other apparent way of determining that the space heater is “on.”

E. Space heaters must be approved by a nationally recognized testing laboratory (i.e., Underwriters Laboratories).

F. Space heaters must have functional tip-over protection (i.e., space heater must turn off automatically if tipped over).

G. Space heaters must plug directly into an electrical outlet; the use of extension cords connected to space heaters is prohibited.

H. Space heaters must always be turned off and unplugged when not in use and may not be left running while unattended.

VII. Extension Cords and Power Strips

A. Extension cords and power strips must be designated and approved by a nationally-recognized testing laboratory, labeled, and used in accordance with 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 and approved with a NRTL mark for industrial/commercial use. The use of household extension cords (two-prong) and non-multi-plug adapters is prohibited.

C. Extension cords and power strips must be plugged into a wall outlet may and 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, may only be used for a temporary period of up to 90 days, and must 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, extension cord, or power strip.
F. Ensure extension cords do not have cuts, nicks, or exposed wiring, and must be immediately removed from service if found.
G. Ensure cords are not running under carpeting or under doorways.

VIII. Open Flames and Heat Sources
A. The use of open flames inside Northwestern-owned buildings is prohibited, unless the area is designated as such (i.e., research laboratory, metal shop, kitchen).
B. Open flames (e.g., burners, ovens) in labs must be kept in hoods or clear of any combustible/flammable material when not in a hood (see Research Safety’s General Lab Safety for more detailed information).
C. No Northwestern employee, contractor, or subcontractor may perform any hot work unless a hot work permit is obtained and approved by Facilities (see the Welding, Cutting, and Brazing (Hot Work) Program).
D. Variances may be provided under certain circumstances (i.e., during the religious ceremonies, such as sage burning); approval must be obtained from Risk Management in advance.
E. Smoking is prohibited in Northwestern-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 may not be used in areas that serve as a means of egress.
B. Follow the manufacturer’s or owner’s guide for safety guidelines and safe operation.
C. A portable fire extinguisher must be located in close proximity to the grill, but not affixed to the grill. The fire extinguisher must be at least a 10-pound, ABC-type fire extinguisher.
D. Hot ashes or cinders must 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 is prohibited in Northwestern-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 to prevent them from falling with a chain or securing to a cart.
E. Compressed gas cylinders, 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 must ensure all of general safety items in this section are followed, including:
      i. Event occupancy cannot exceed pre-approved occupancy limits, as identified by the authority having jurisdiction.
      ii. Ensuring the caterer is aware it must supply and ensure fire extinguishers are available.
      iii. Catering managers must ensure all staff have attended their organization’s fire extinguisher training.
      iv. Ensure personnel in charge of site catering operations are familiar with the location of the closest fire alarm pull station and the procedures for summoning emergency assistance.
      v. Ensure exits remain unobstructed and provide clear access at all times during the event, including tent and courtyard exits.
      vi. Banners and informational material cannot block any emergency safety equipment (i.e., fire alarm panels, pull stations, stairs, smoke detectors, hoses, fire extinguishers, exit signage, exit paths).
      vii. Table and chair set-up arrangements that may interfere with exits must be reviewed by Risk Management.
   B. Small heat sources, such as solid alcohol-burning devices (e.g. Sterno gel fuel), are allowed in public spaces, provided the devices are attended to while a flame is present. The use of solid alcohol-burning devices is prohibited in non-approved areas (i.e., 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-owned buildings 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 may 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, cutting and welding hot surfaces, frictional heat, static, electrical and mechanical sparks, and spontaneous ignition, including heat-producing chemical reactions and radiant heat.
   E. Flammable liquids (Category 1, 2, or 3) with a flashpoint below 100 °F cannot be dispensed into containers, unless the nozzle and container are electrically interconnected (e.g., where the metallic floorplate on which the container stands while filling is electrically connected to the stem, 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, and keep paper or plastic near ignition sources.
B. Ensure excess garbage (e.g., empty boxes) is properly removed and disposed of.
C. Storage should be kept in designated areas (i.e., rooms, cabinets) away from egress paths and doors.
D. Storage should be at least 36 inches away from any electrical panel, cabinet, water heater, boiler, or any potential heat-creating device.
E. All storage should be at least 18 inches 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 must be composed of flame-resistant material or treated with a flame retardant. The tent/canopy should have an affixed label.
B. In general, 10-pound, portable, ABC fire extinguishers must be mounted in conspicuous locations; in kitchen areas, K-type fire extinguishers must be provided instead of ABC.
C. Tents, where cooking is performed, must be a minimum of 20 feet from all other tents and approved for use by the Fire Prevention Bureau.
D. Equipment used for cooking must be vented to the outside and equipped with spark arresters (when required). Vents/flues must be a minimum of 12 inches from the tent.
E. Outdoor cooking must be performed a minimum of 20 feet from tents.
F. Cooking and heating equipment must be a minimum of 10 feet from exits or combustible materials.
G. LP-gas containers less than 500 gallons must be a minimum of 10 feet from tents; LP-gas containers greater than 500 gallons must be a minimum of 25 feet from tents.
H. Flammable and combustible liquids must be stored outside in an approved manner a minimum of 50 feet from tents.
I. Refuel flammable-liquid-fueled equipment at least 20 feet from tents.
J. Generators and similar items must be a minimum of 20 feet from tents.
K. A multiplex power strip with surge protection or temporary wiring approved by the Evanston Fire Department must be used.
L. Electric heaters must be labeled and connected to electricity by a cable suitable for outside use and of a sufficient size to handle the load.
M. Floors within tents and the ground outside tents within a 30-foot perimeter must be kept clear of combustible waste.
N. Smoking is 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 the 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 Northwestern’s buildings. These systems are designed to contain a fire if activated. Once activated, the sprinkler system will activate the fire alarm and notify emergency response.
C. **Fire Extinguishers**

Fire extinguishers are located throughout Northwestern’s buildings and are designed to extinguish a small, beginning stage fire by building occupants. Training for fire extinguishers is recommended and available for Northwestern-affiliated individuals. Contact Risk Management for additional details or to schedule fire extinguisher training.

XVII. **Regulatory Authority and Related Information**

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

- NFPA 55 – Compressed Gasses and Cryogenic Fluids
- City of Evanston Title 4 – Building Regulations, Chapter 4 – Fire Prevention Regulations

XVIII. **Contact**

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