Agenda

- Introductions All
- Roof Access Policy Kim Haley
- Fire Protection System Impairments Policy David Guynn
- Flu Clinic Schedule Mary Beth Koza
- Campus Security Update Jeff McCracken Derek Kemp
Roof Access Policy
Objectives

To establish guidelines and requirements for the safety of UNC employees while accessing campus roofs.

- Roof Access Authorization
- Provides overview of potential roof hazards
  - General Roof Safety
    - Machine Guarding
    - Fall Protection
    - Ladder Safety
    - Environmental Conditions
  - Radio Frequency Safety
  - Chemical Fume Hood Exhaust
Radio Frequency Safety

- Neutral Hosting/Distributed Antenna System
  - 13 buildings with radio frequency antennas
  - 6 buildings have antennas that may exceed OELs
  - Carriers installing signs and markers to prevent access
Chemical Fume Hood Exhaust

- Identify buildings with short stacks
- Post safety signs at access points
- Shut down fume hoods if working within 10ft

Source: https://www.labdesignnews.com/article/2014/12/your-toolkit-good-lab-exhaust-design
Access Authorization

• Install electronic card access systems
  – Phase 1- RF antenna buildings
  – Phase 2- Laboratory buildings-short stacks
  – Phase 3- Remainder of campus-based on hazards
Fire Protection System Impairments Policy
Objective

- Establish a consistent, comprehensive policy for:
  - The reporting of impairments to University fire protection systems
  - The establishment of a fire watch due to an impairment
- This is both a compliance issue and a risk management issue
Requirements

• The North Carolina Fire Prevention Code requires:
  - The notification of the local fire department and the fire code official for fire system impairments
  - The evacuation of a building or the implementation of a fire watch during fire system impairments
  - The only duty of personnel engaged in a fire watch shall be constant patrols of the affected portions of the building
Requirements

- National Fire Protection Association standards recommend:
  - The implementation of compensatory measures after:
    - four hours of impairment for a fire alarm system
    - ten hours of impairment for a water-based protection system

- Compensatory measures do not always mean a fire watch. Examples:
  - Fire alarm or sprinkler testing
  - Repairs to an individual device
Policy: Types of Impairments

- Planned, Special Event
  - Football or basketball game
  - Performing arts
- Planned, Maintenance and Construction
  - Preventative Maintenance, Addition to System
- Unplanned
  - Malfunctions
Policy: Impairment Procedure

• Impairments for special events are requested through EHS
• Impairments are requested through Life Safety for construction, maintenance, or emergency repair
Policy: Notification

- Life Safety will notify the Fire Marshal if:
  - An impairment is located in a Housing building
  - A water-based system impairment exceeds ten hours
  - A fire alarm impairment exceeds four hours
- The Fire Marshal, with the input of Life Safety, will determine any required compensatory measures
Policy: Fire Watches

- Clarifies the definition of a fire watch for the University
- Establishes requirements for fire watches
- Ensures that personnel providing fire watches are vetted and approved by Public Safety
Fire Watches, last twelve months

- Ram Village 5
  - First floor only; ~3 weeks in duration
- Kenan Stadium Press Box
  - Six days in duration
- Dogwood Deck
  - Six days in duration, provided by hospital parking
- General Administration
  - Three days in duration
- Bingham Facility
  - Three days in duration
flu.unc.edu

- The Student Stores Pharmacy
- UEOHC
- Walk-in Clinics (9:30am to 4pm)
  - September 20, Hyde Hall, University Room
  - September 22, Michael Hooker Research Center, Lower Level Atrium
  - September 27, Medical Biomolecular Research Building (MBRB), second floor lobby
  - September 29, Giles Horney, Magnolia Room
  - October 4, Venable Hall, Second Floor Lobby 2201
  - October 5, Genetics Medicine Building, Lobby
  - October 6, Campus Y Lobby
  - October 11, Genome Sciences Building, Café
  - October 13, McColl Grad Student Lounge
  - October 18, Michael Hooker Research Center, Lower Level Atrium
  - October 20, Koury Atrium Lobby Stage, Koury Oral Health Sciences Building
  - October 21, Frank Porter Graham Student Union, Room 2518, Employee Appreciation Day
  - November 1, Medical Biomolecular Research Building (MBRB), second floor lobby,
  - November 3, Giles Horney, Cypress Room
1. Roof Access Policy

Haley introduced the new roof access policy and objectives. Key to the policy is roof access authorization with electronic card swipes. Radio frequency safety was also discussed – 6 buildings on campus are installing signs and markers near RF antennas. There are also chemical fume hood exhaust issues in a few buildings with short stacks which the policy also addresses. The roof access policy will be implemented in 3 phases - first phase in RF buildings, phase 2 short stack lab buildings, phase 3 other hazards. Process will probably take 3-5 years. Card authorization (OneCard, SOM or Res Hall electronic key box) linked to Facilities job classification, can pull records on who has accessed. Committee voted to approve policy.

2. Fire Impairment Policy

Guynn went over background, regulatory requirements and objectives of new fire impairment policy. Example of Rams 5dormitory building fire watch at beginning of semester and other buildings on campus with fire impairments in last 12 months. Types of impairments on campus can be planned or unplanned and policy addresses each specifically. Committee voted to approve policy.

3. Flu Clinics

Koza gave an update on flu clinic plan this year for employees. Flu clinics will be held at Student Stores Pharmacy (2 locations), UEOHC for employees in immunization program, and various walk in clinics located on campus for other employees. See website for more specifics: http://flu.unc.edu. There will also be a clinic scheduled for 2nd and 3rd shift. (A suggestion was made that next year this clinic should be aligned with International Housekeeping Appreciation (IHA) event).

4. Security Update

McCracken gave an update on security issues on campus. National and state events/strife regarding police and communities. DPS has participated in open forums with UNC community. Implementing
community police academy, to help build advocates. DPS held event with football team alongside CHPD – observed practice, ate a meal. DPS is looking for opportunities to interact with all student groups on campus. University day coming up and may have protests. Also UNC President inauguration same day and may be some issues.
Policy on Fire Protection System Impairments

Policy Statement

An impairment of a fire protection system poses a risk to students, faculty and staff. This policy describes required actions to be taken by the University if a required fire protection system is impaired or taken out of service due to construction, alteration, malfunction, a special event, or an emergency condition.

Definitions

Fire protection system: Approved devices, equipment, and systems or combinations of systems used to detect a fire, activate an alarm, extinguish or control a fire, control or manage smoke and products of a fire or any combination thereof.

Fire watch: A temporary measure to ensure continuous and systematic surveillance of a building or portion thereof by one of more qualified individuals for the purposes of identifying and controlling fire hazards, detecting early signs of unwanted fire conditions, raising the alarm of fire and notifying the fire department via 911 as soon as possible.

Impairment: a shutdown, in whole or in part, of a fire protection system.

Audience

This policy applies to all employees of UNC-Chapel Hill and outside contractors who will be working on University property.

Roles and Responsibilities

University Fire Marshal: shall be the University’s designated Impairment Coordinator as defined in the North Carolina Fire Prevention Code.

Reason for Policy

The University has an obligation to provide a safe and healthful environment to all students, faculty, staff, and visitors located in University buildings. Functioning fire protection systems play a key role in maintaining life safety for building occupants. This policy establishes procedures to mitigate life safety risk in the event of an impairment of a building fire protection system.

Compliance

Failure to implement actions required by the North Carolina Fire Code during fire protection system impairments could expose the University to liability or significant property loss in the event of a fire.
Procedures

Impairments of fire protection systems may be classified as planned or unplanned. A planned impairment is when a fire protection system is placed out of service due to work that has been planned in advance, such as construction or maintenance. Special events requiring the impairment of a fire protection system are also considered planned. Unplanned impairments include, but are not limited to, the malfunction of a fire protection system or the restoration of a fire protection system after an emergency. In any case, an impairment of a fire protection system requires the implementation of compensatory measures to maintain life safety during the period of impairments. Examples of compensatory measures include, but are not limited to:

- Reduction of activities within the impaired area or building
- Closure of the impaired area or building
- Implementation of a fire watch

Procedure: Planned Impairments for Special Events

Planned impairments for special events will be approved by the University Fire Marshal or designee. Individuals or groups requesting planned impairments for a special event shall submit a “Special Event/Assembly Fire Safety Permit” (Appendix A) to the University Fire Marshal no less than seven days prior to the event. The individual or group requesting the impairment shall be responsible for any cost or charges associated for the provision of an approved fire watch. See Fire Watch Requirements, below, for further guidance. Planned impairments for special events shall not require the notifications described in Notifications, below.

Procedure: Planned Impairments for Maintenance or Construction

Individuals requesting planned impairments for construction or maintenance shall coordinate directly with Facilities Services. If any impairment is planned for a building operated by the Department of Housing and Residential Education (DHRE), Facilities Services shall immediately notify the University Fire Marshal (See Appendix B for a list of buildings operated by DHRE). Planned impairments in other buildings exceeding four hours in duration for a fire alarm system or ten hours in duration for a water-based fire protection system require the notification of the University Fire Marshal by Facilities Services. A required notification shall include:

- The extent and expected duration of the impairment
- Whether the areas or buildings involved have been inspected
- Whether the fire protection system has been tagged
- Whether employees in the area have been notified of the impairment
- Recommendations regarding the implementation of a fire watch or other compensatory measure

Upon notification, the University Fire Marshal or designee shall determine whether a fire watch is required, or if another compensatory measure is acceptable for the duration of the fire
protection system impairment. The costs or charges associated with providing a fire watch under this section are to be determined at the time of initiation. See Fire Watch Requirements, below, for further guidance. The University Fire Marshal shall also complete the notifications required in Notifications, below.

Procedure: Unplanned Impairments

In general, an unplanned impairment occurs due to a malfunction that renders a fire protection system inoperable. Any unplanned impairments in a building operated by the Department of Housing and Residential Education require the immediate notification of the University Fire Marshal. Unplanned impairments in other buildings exceeding four hours in duration for a fire alarm system or ten hours in duration for a water-based fire protection system require the notification of the University Fire Marshal. A required notification shall include:

- The extent and expected duration of the impairment
- Whether the areas or buildings involved have been inspected
- Whether the fire protection system has been tagged
- Whether employees in the affected area have been notified of the impairment
- Recommendations regarding the implementation of a fire watch or other compensatory measure

Upon notification, the University Fire Marshal or designee shall determine whether a fire watch is required, or if another compensatory measure is acceptable for the duration of the fire protection system impairment. The costs or charges associated with providing a fire watch under this section are to be determined at the time of initiation. See Fire Watch Requirements, below, for further guidance. The University Fire Marshal shall also complete the notifications required in Notifications, below.

Procedure: Tagging and Signage of Impaired Fire Protection Systems

The provisions of this section shall only apply to impairments exceeding four hours in duration for a fire alarm system or ten hours in duration for a water-based fire protection system.

Tags indicating that a fire protection system, or portion thereof, has been impaired or placed out of service shall be located at each fire department connection, system control valve, fire alarm control unit, fire alarm annunciator and fire command center indicating which system, or part thereof, is impaired.

Additionally, when a fire alarm system is impaired for more than four hours, a sign shall be placed at each entrance to the building advising occupants of the impairment and directing them to contact 911 in the event of an emergency.

Procedure: Restoring Fire Protection Systems

Once a fire protection system has been restored to complete operation, Facilities Services shall notify the University Fire Marshal. This notification shall include:
- Verification that any necessary inspections and tests have been conducted to ensure that all fire protection systems are operational.
- Whether employees in the affected area have been notified of the restoration of the fire protection system.
- Whether the impairment tags have been removed from the fire protection system.

Upon receiving confirmation that the fire protection system has been restored, the University Fire Marshal shall also complete the notifications required in Notifications, below.

**Procedure: Fire Watch**

Chapter 9 of the North Carolina Fire Prevention Code states that fire watches shall “be provided with at least one approved means for notification of the fire department and their only duty shall be to perform constant patrols of the premises and keep watch for fires.” All persons assigned to a fire watch under this policy must be approved by the University Fire Marshal and must be dedicated exclusively to the duties described in this section. Fire watch personnel for all planned impairments associated with maintenance and construction or for unplanned impairments will be contract security guards coordinated and vetted through the Department of Public Safety.

Individuals conducting a fire watch under this policy shall:

- Be trained in the University’s fire watch procedure and fire reporting procedure
- Be responsible, non-impaired, alert and awake at all times.
- Know the location of fire protection devices, including the fire alarm panel, pull stations, and fire extinguishers.
- Have a reliable means to contact 911 available at all times. For the purposes of this policy, a cellular telephone is an approved means for notification of the fire department.
- Have access to all areas of the building with keys to all secured areas.
- Have a functioning flashlight.
- For buildings operated by the Department of Housing and Residential Education: Continuously and systematically patrol all affected, common areas of the building throughout the fire watch.
- For all other buildings: Systematically patrol all affected areas of the building every thirty minutes.
- Maintain a log indicating the times and areas of patrol within the building and conditions observed. Each entry shall have a time, date, and signature. An approved log is in Appendix C of this policy.

**Procedure: Notifications**

Where a notification to the University Fire Marshal is required under this policy, the University Fire Marshal shall also notify the following individuals/groups:

- Chapel Hill Fire Department
- UNC-Chapel Hill E-911 Center
Notifications shall include all information provided to the University Fire Marshal. Additionally, notifications shall include the nature of any required compensatory measures.

**Applicable Regulations, Statutes and Related Policies**

- North Carolina Fire Prevention Code
- NFPA 25: Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems
- NFPA 72: National Fire Alarm and Signaling Code

**Contacts**

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919-962-7248

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Chapel Hill, NC 27599  
919-962-5708  
dtguynn@ehs.unc.edu

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Alarm Shop Supervisor – Facilities Services  
Building Services, 103 Airport  
Chapel Hill, NC 27599  
919-904-0839

**Document History**

Effective Date: September 22, 2016 (date approved by University Safety and Security Committee, chaired by Vice Chancellor for Finance and Administration).
**Appendix A: Special Event/Assembly Fire Safety Permit**

The University of North Carolina at Chapel Hill
Special Event/Assembly Fire Safety Permit

All events requesting EHS Fire Safety Coverage must be requested using this form.

<table>
<thead>
<tr>
<th>Name of Requestor:</th>
<th>Title of Requestor:</th>
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<tbody>
<tr>
<td>Department:</td>
<td>Telephone Number:</td>
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<td>E-mail address:</td>
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<tr>
<th>Event Name:</th>
<th>Event Location:</th>
<th>Event Date:</th>
<th>Start Time:</th>
<th>Event Estimated Length:</th>
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Are you requesting that the fire alarm system be silenced for this event? □ Yes □ No
REQUESTED ALARM SILENCE TIME:

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<tr>
<th>Event Type:</th>
<th>On-site cooking</th>
<th>Non-assembly space</th>
<th>Pyrotechnics</th>
<th>Non-cooking open flame</th>
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Does the event and venue have an approved fire safety plan? □ Yes □ No

The provision of fire watch services by the Environment, Health and Safety Department and fire alarm technician services from Facilities Services is required when a fire alarm system is impaired for a special event. The number of required fire watch personnel will be determined by the University Fire Marshal during the fire/public safety planning process. The cost of these services is the responsibility of the requesting department or unit. By signing below, I acknowledge that I understand these charges and I authorize Facilities Services and Environment, Health and Safety to charge the below accounts for services rendered.

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<th>UNC TUM Account Code:</th>
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Please note that a fire/public safety plan must be approved by the University Fire Marshal prior to the event (2012 North Carolina Fire Prevention Code 403.2, 404.2). For questions or assistance in developing this plan, call (919) 962-5708.

Please submit this form to David Guynn, University Fire Marshal, (dguynn@ehs.unc.edu) no later than one week prior to the event.

<table>
<thead>
<tr>
<th>Signature of Requestor:</th>
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<th>University Fire Marshal Approval:</th>
<th>Date:</th>
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FOR OFFICE USE ONLY

☐ FS Plan Approved  ☐ Other required permits issued  ☐ Life Safety coordination complete
☐ Pre-event inspection scheduled  ☐ FS personnel assigned  ☐ Permit Approved  Permit #:
Appendix B: List of Buildings operated by the Department of Housing and Residential Education

Alderman Residence Hall
Alexander Residence Hall
Avery Residence Hall
Aycock Residence Hall
Baity Hill Student Family Housing
Carmichael Residence Hall
Cobb Residence Hall
Connor Residence Hall
Craige Residence Hall
Craige North Residence Hall
Ehringhaus Residence Hall
Everett Residence Hall
Graham Residence Hall
Grimes Residence Hall
Hardin Residence Hall
Hinton James Residence Hall
Horton Residence Hall
Joyner Residence Hall
Kenan Residence Hall
Koury Residence Hall
Lewis Residence Hall
Mangum Residence Hall
Manly Residence Hall
McIver Residence Hall
Morrison Residence Hall
Old East
Old West
Parker Residence Hall
Ram Village 1
Ram Village 2
Ram Village 3
Ram Village 4/Taylor Residence Hall
Ram Village 5
Ruffin Residence Hall
Spencer Residence Hall
Stacey Residence Hall
Teague Residence Hall
Wilson Residence Hall
Appendix C: Fire Watch Log

The University of North Carolina at Chapel Hill
Fire Watch Log

<table>
<thead>
<tr>
<th>Building Name:</th>
<th>Date:</th>
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<tbody>
<tr>
<td>Name(s) of Personnel Conducting Fire Watch:</td>
<td>Firm/Company:</td>
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<tr>
<td>Shift Start Time:</td>
<td>Shift End Time:</td>
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START OF SHIFT CHECKLIST:
Each individual conducting a fire watch at the University of North Carolina at Chapel Hill must complete the following checklist at the start of their shift or assigned fire watch period. Any change in personnel will be considered a new fire watch shift or period.

Each individual conducting the fire watch:
- Understands the extent of the impairment to the building’s fire protection system.
- Knows the location of fire protection devices within the building, including the fire alarm panel, all pull stations, and fire extinguishers.
- Has a reliable means to contact the fire department. A cellular phone is approved for this purpose.
- Has access to areas to the building with keys to all secured areas.
- Has a functioning flashlight.

PATROL LOG:
In student housing, patrols must be conducted continuously of all affected common areas. Otherwise, patrols shall be conducted every thirty minutes.

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<tr>
<th>NUMBER</th>
<th>TIME</th>
<th>BUILDING CONDITION</th>
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IN THE EVENT OF A FIRE OR OTHER EMERGENCY, DIAL 911
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CERTIFICATION:
By signing below, I/we certify that the fire watch checklist on the front page of this form was completed in its entirety at the beginning of the fire watch shift or period, and that patrols were conducted as noted on this log.

Signatures and Printed Names

SUBMISSION:
A completed form must be submitted to the University Fire Marshal for each shift or assigned fire watch period. Any change in personnel will be considered a new fire watch shift or period. This log must be submitted within 24 hours of the end of the shift time as noted on this log.

This log may be submitted by e-mail to firemarshal@unc.edu, by campus mail to Fire Safety CB#1650, or by fax at (919) 962-0227.
The University of North Carolina at Chapel Hill

Roof Access Policy

Purpose

This policy is to establish requirements for the safety of UNC employees while accessing roofs in various locations around campus. The purpose of the roof access policy is to establish a set of guidelines and requirements that UNC Environment, Health and Safety, supervisors, and employees must uphold. There are various hazards associated with accessing campus roofs, and this policy has been developed to assist in mitigating those hazards.

Responsibilities

Environment, Health and Safety

EHS is responsible for reviewing hazards and incidents associated with accessing campus roofs. EHS is responsible for reviewing and updating the Roof Access Policy. EHS and Supervisors will also work jointly in the development of Job Safety Analysis for roof access issues that present a unique hazard to the employee. EHS will develop and implement the training for this policy.

Supervisor and Employee

It is the supervisors’ responsibility to make sure that employees, who will be required to access campus roofs, are properly trained on the Roof Access policy and other applicable policies upon employment. It is the supervisors’ responsibility to ensure that their employees adhere to the requirements of this policy.

General Roof Safety

Before beginning roof work:

- Pay attention to any posted safety signage at roof access point(s).
- If rooftop activities might generate dust or odors in the vicinity of building air intakes, contact EHS for project review.
• Assess work conditions— avoid or restrict roof access work when wet or windy weather conditions exist, especially after dark unless adequate illumination is available.

• Inspect site & equipment for:
  o Structural integrity of the roof surface to safely support heavy equipment/tools
  o Condition of equipment (protective fall restraint system, personal protective equipment, etc.)
  o Potential insects/ pest problems on the roof (e.g., beehives, wasps, bird droppings, etc.)

• For any roof safety concerns, contact supervisor or EHS at 919-962-5507.

During roof work

• Ensure safety down below — For work being performed close to the roof’s edge, demarcate and barricade the area(s) below to protect pedestrian from falling debris.

• Pay extra attention to trip and slip hazards (i.e., standing water or equipment).

Completion of roof work

• General housekeeping— Prior to leaving the roof, clean up and remove all tools/equipment, and materials.

• Never leave any items on the rooftop that can be blown off by the wind.

• Secure the roof access door and/or hatch to prevent unauthorized roof access.

Machine Guarding

Campus roofs contain mechanical equipment with hazardous moving parts such as exhaust fans. Hazardous moving parts must be guarded to prevent accidental contact with the parts. Employees accessing roofs must be aware of equipment and machine guarding requirements outlined in the campus Machine Safeguarding Requirements Policy. Employees should report any equipment without safeguards in place. Maintenance and repair crew must never fail to replace the guards before the job is considered finished.

Fall Protection

Employees accessing campus roofs must be aware of and adhere to fall protection requirements. The OSHA specific requirements are outlined in the campus Fall Protection Policy. A summary of some of the hazards are provided below:

• Each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is 6 feet (1.8 m) or more above a lower level shall be protected from falling by the use of guardrail systems, safety net systems, or personal fall arrest systems.
• Each employee who is constructing a leading edge 6 feet (1.8 m) or more above lower levels shall be protected from falling by guardrail systems, safety net systems, or personal fall arrest systems.

• Each employee on walking/working surfaces shall be protected from falling through holes (including skylights) more than 6 feet (1.8 m) above lower levels by personal fall arrest systems, covers, or guardrail systems erected around these areas.

• Each employee engaged in roofing activities on low-slope roofs, with unprotected sides and edges 6 feet (1.8 m) or more above lower levels shall be protected from falling by guardrail systems, safety net systems, personal fall arrest systems, or a combination of warning line system and guardrail system, warning line system and safety net system, or warning line system and personal fall arrest system, or warning line system and safety monitoring system.

• Each employee on a steep roof with unprotected sides and edges 6 feet (1.8 m) or more above lower levels shall be protected from falling by guardrail systems with toe boards, safety net systems, or personal fall arrest systems.

Ladder Use

Some campus roofs are only accessible via fixed ladders. Employees must be familiar with the campus Stairways and Ladders Policy. General ladder safety requirements are:

• Ladder side rails shall extend at least 3 feet above the point of support at eave, gutter, or roof line.

• Always maintain 3 points of contact with the ladder (ex. Two hands and one foot, two feet and one hand).

• Clean grease, mud or other slippery debris off shoes prior to climbing ladder.

• Always face ladder when climbing up or down.

• Never slide down a ladder.

• Carry tools in pouch around waste and/or use rope to raise or lower large items to or from roof.

Environmental Conditions

Employees working on the campus roofs may be exposed to unfavorable weather conditions such as extreme heat or cold temperatures. Employees should:

• Wear appropriate clothing. Choose lightweight, light-colored, loose-fitting clothing in hot conditions. Choose layers of loose-fitting, insulating and possibly waterproof clothes in cold conditions.

• When working in the heat, stay hydrated by drinking small amounts of cool water frequently. Drink warm, sweetened liquids in the cold.

• Monitor yourself and co-workers for symptoms of weather-related illness. Call 911 immediately if symptoms are observed.
Review the campus **Heat Stress Policy**.

**Chemical Fume Hood Exhaust**

Chemical fume hood exhausts are located on the roofs of campus laboratory buildings. The risk of exposure to chemical substances in concentrations that exceed occupational exposure limits for individuals working on roofs is extremely low due to the large amount of dilution that occurs in a laboratory hood and further dilution when the exhaust gases mix with the surrounding air. For further protection, exhaust stacks are designed to have enough velocity and height (typically 10 ft) to exhaust above the building envelope to prevent re-entrainment. Majority of campus fume hood exhausts meet these requirements. There are a limited number of buildings with short exhaust stacks where there is a possibility of re-entrainment. EHS will work conjointly with Facilities Services to identify these buildings and post warning signs at the access points.

When working on roofs with short stacks, individuals should maintain at least a 10 foot radius around the exhaust. If you have to work within 10 feet of the exhaust, contact the laboratory to coordinate shut down of the fume hood during the work. Place an out-of-service sign on the fume hood. If the fume hood cannot be shut down, contact EHS (919-962-5507) for assistance in determining the proper procedures and personal protective equipment (PPE) to wear during the work.

**Radio Frequency Safety**

Currently thirteen roofs have network carrier antennas as part of the Neutral Hosting/Distributed Antenna System initiative which is an effort to provide cellular coverage across campus. Additional antennas will be added in phases. Six of the current antennas have the potential to transmit radio frequency (RF) emissions above occupational exposure limits. These antennas are in designated controlled areas surrounded by barriers to prevent exposures above RF limits for people accessing the roofs. Safety signs are posted at roof access points and on the barriers around the antennas. Employees must obey all posted signs, assume antennas are transmitting and not enter the prohibited area around antennas. EHS will develop a RF safety program which will include training. Employees accessing the roofs must be trained on the Roof Access Policy as well as RF safety. The current RF antenna buildings are listed below:

- Administrative Office Building (AOB – Giles Horney complex)*
- Cardinal Parking Deck
- Carmichael Residence Hall*
- Cobb Parking Deck
- Dean Smith Center
- Ehringhaus Residence Hall
- FedEx Global*
- Greenlaw
- ITS Manning*
- Kenan-Flagler Parking Deck
- Kenan Music Center*
Roof Access Authorization

Roof access is currently restricted to staff and others that are issued a maintenance room key. With the implementation of this policy, access will be controlled by electronic card access systems for authorized staff and others trained on this policy. An individual’s UNC One Card will be used to access roofs with electronic systems. The systems will be installed in phases:

- Phase I will include buildings with RF antennas located on the roof.
- Phase II will include laboratory buildings with short exhaust stacks.
- Phase III will include the remainder of campus buildings based on potential hazards.

Contractors will be given temporary authorization to access campus roofs for projects requiring roof work through Construction Services and Management. Construction Services and Management will inform contractors of specific potential hazards on the roofs where the work will occur.

Individuals with access privileges must not lend their One Card to anyone under any circumstances. Lost cards must be suspended immediately through the UNC One Card Office to prevent any unauthorized use.

Unauthorized access is a violation of this policy and may violate other University policies or civil or criminal laws. Allowing unauthorized persons to access a roof will result in revocation of access privileges and/or disciplinary action.

Training Program

Training

UNC-CH shall provide a one-time training program for each employee who might access campus roofs. Individuals must be trained on this policy before authorization will be provided. Personnel who access any roofs must be trained on general safe practices that are relevant to their work, including but not limited to the following:

1) Overview of potential roof hazards
   a) General roof safety
   b) Machine guarding
   c) Fall protection
   d) Ladder use
Retraining

Circumstances where retraining is required include, but are not limited to, situations where:

1. An incident in the workplace has occurred that is associated with roof access.
2. Changes in the workplace render previous training obsolete.
3. Changes in this policy.
4. Inadequacies in an affected employee's knowledge indicate that the employee has not retained the requisite understanding of this policy.
LEGAL REFERENCES

Section 5(a)(1) of the Occupational Safety and Health Act of 1970, General Duty Clause

Federal Communications Commission 47 CFR 1.1310 Radiofrequency Radiation Exposure Limits Standard

North Carolina General Statutes, Chapter 95, Department Of Labor and Labor Regulations

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