

 **COLUMBIA UNIVERSITY**  
IN THE CITY OF NEW YORK

# Contractor Compliance Guideline



*The Contractor Compliance Guideline contains safety, health, and environmental policies and procedures for all Contractors working at and for Columbia University. It is the responsibility of all Contractors, their staff, and subcontractors to comply with all components of this Guideline.*

*While this Guideline outlines some health and safety policies and procedures, it does not relieve the contractor of the responsibility for following federal, state, or local regulations or industry best practice. Approved site-specific procedures supersede this Guideline.*

Cover Photos by:

Eileen Barroso/Columbia University (top)

Frank Oudeman/Columbia University (bottom left)

Odelia Ghodsizadeh/Columbia University Irving Medical Campus (bottom right)

# Table of Contents

## Contents

- GLOSSARY OF TERMS – ACRONYMS & DEFINITIONS ..... 5
- 1.0 General Information..... 8
  - 1.1 Inspections..... 8
- 2.0 Contractor Receipt Acknowledgement Form..... 8
  - 2.1 Safety Orientation and Training..... 8
  - 2.2 Contractor Code of Conduct.....9
- 3.0 General Safety and Security .....10
  - 3.1 Security.....11
  - 3.2 Prohibited Items.....11
  - 3.3 Housekeeping/Maintenance.....11
  - 3.4 Protecting Building Occupants from Construction Activities .....11
  - 3.5 Smoking.....12
  - 3.6 Traffic Safety and Parking .....12
  - 3.7 Storage at Job Site.....12
  - 3.8 Falling Object Protection.....12
- 4.0 Emergency Management.....12
  - 4.1 Investigation and Reporting of Accidents and Incidents .....13
- 5.0 Fire Safety .....13
  - 5.1 Certificates of Fitness.....13
  - 5.2 Hot Work Permits .....14
  - 5.3 Compressed Gas Storage .....14
  - 5.4 Gasoline Powered Equipment.....14
- 6.0 Laboratory Safety.....14
  - 6.1 Laboratory Clearance Process.....14
  - 6.2 Radiation Safety.....15
  - 6.3 Biological Materials .....16
  - 6.4 Laser Safety.....16
- 7.0 Environmental Safety.....17
  - 7.1 Hazardous Materials Management.....17

7.2 Hazardous Waste .....	17
7.3 Universal Waste.....	18
7.4 Fluorescent Light Ballasts.....	18
7.5 Hazardous Scrap Metal and End-of-Life Electronic Equipment.....	18
7.6 Spill Prevention Control and Countermeasures (SPCC).....	18
7.7 Water Intrusion and Mold Recognition.....	18
7.8 Asbestos-Containing Materials .....	19
7.9 Lead Based Paint and Stain .....	19
7.10 Refrigerant.....	19
7.11 Mercury Contamination Identified During Construction .....	19
7.12 Air Emissions.....	20
7.13 Nuisance Odors.....	20
7.14 Dust Control .....	21
8.0 Occupational Safety.....	21
8.1 Hazard Communication.....	21
8.2 Personal Protective Equipment.....	21
8.3 Ladder Safety.....	21
8.4 Lockout / Tagout.....	21
8.5 Electrical Safety.....	22
8.6 Confined Space Entry .....	22
8.7 Scaffolding.....	22
8.8 Fall Protection.....	22
8.9 Machine Guards.....	23
8.10 Excavation.....	23
8.11 Noise.....	23
8.12 Mobile Equipment/Work Platforms .....	23

## GLOSSARY OF TERMS – ACRONYMS & DEFINITIONS

### Acronyms

<b>ACM:</b>	ASBESTOS CONTAINING MATERIAL
<b>ANSI:</b>	AMERICAN NATIONAL STANDARDS INSTITUTE
<b>CAA:</b>	CLEAN AIR ACT
<b>CERCLA:</b>	COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT
<b>CFR:</b>	CODE OF FEDERAL REGULATIONS
<b>CUFO:</b>	COLUMBIA UNIVERSITY FACILITIES & OPERATIONS (Morningside & Manhattanville)
<b>CWA:</b>	CLEAN WATER ACT
<b>DOB:</b>	NEW YORK CITY DEPARTMENT OF BUILDINGS
<b>DOT:</b>	NEW YORK CITY DEPARTMENT OF TRANSPORTATION
<b>HASP:</b>	HEALTH AND SAFETY PLAN
<b>HVAC:</b>	HEATING VENTILATING AND AIR CONDITIONING SYSTEM
<b>LBP:</b>	LEAD-BASED PAINT
<b>NEC:</b>	NATIONAL ELECTRICAL CODE
<b>NIOSH:</b>	NATIONAL INSTITUTES OF OCCUPATIONAL SAFETY AND HEALTH
<b>NFPA:</b>	NATIONAL FIRE PROTECTION ASSOCIATION
<b>NYCDOHMH:</b>	NEW YORK CITY DEPARTMENT OF HEALTH AND MENTAL HYGIENE
<b>ODS:</b>	OZONE-DEPLETING SUBSTANCE
<b>PACM:</b>	PRESUMED ASBESTOS-CONTAINING MATERIALS
<b>PCB:</b>	POLYCHLORINATED BIPHENYL
<b>PPE:</b>	PERSONAL PROTECTIVE EQUIPMENT
<b>RCRA:</b>	RESOURCE CONSERVATION AND RECOVERY ACT
<b>RMW:</b>	REGULATED MEDICAL WASTE
<b>SDS:</b>	SAFETY DATA SHEET
<b>SPCC:</b>	SPILL PREVENTION CONTROL AND COUNTERMEASURES
<b>TSCA:</b>	TOXIC SUBSTANCES CONTROL ACT

### Definitions

**“Building Code”** refers to the New York City Building Code, Title 28 of the New York City Administrative Code. The New York City Building Code can be viewed in its entirety through the NYC Department of Buildings (DOB) website.

**“Capital Project Management (CPM)”** refers to the Columbia University department that obtains the services needed to design and construct renovation and new construction projects on Columbia University properties.

**“Campus Life Safety & Regulatory Compliance”** refers to the compliance team located at Columbia University Irving Medical Center.

**“Contractor”** refers to persons or firms directly hired by Columbia University or subcontractors hired by

Contractors working for Columbia University. In addition, any reference henceforth to Columbia University will be applicable to work occurring on all Columbia University campuses, Columbia-owned properties, or properties under the management of Columbia University.

**“Environmental Health and Safety (EH&S)”** refers to the Columbia University department that is responsible for managing all programs related to laboratory and research safety.

**“Environmental Protection Agency (EPA)”** refers to the federal agency that develops and enforces regulations designed to protect the environment. Some of the federal regulations the EPA is responsible for include the Clean Air Act (CAA), Clean Water Act (CWA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the Resource Conservation and Recovery Act (RCRA), and the Toxic Substances Control Act (TSCA).

**“Facilities”** refers to Columbia University Facilities Operations (CUFO) at the Morningside and Manhattanville campuses and all sub-departments under its direct management. This group is responsible for managing Columbia University infrastructures at the designated campuses.

**“Facilities Compliance”** refers to a unit that provides technical assistance, consulting, and regulatory compliance support pertaining to environmental protection, occupational safety, and fire prevention across all of Columbia.

**“FDNY”** refers to the New York City Fire Department. Information regarding FDNY can be viewed in its entirety through the FDNY website located at the web at [www.nyc.gov/fdny](http://www.nyc.gov/fdny).

**“Fire Code”** refers to the New York City Fire Code, Title 29 of the New York City Administrative Code.

**“New York State Department of Environmental Conservation (NYSDEC)”** refers to the state agency that governs state programs designed to protect and enhance the environment. Information regarding NYSDEC can be found on the web at <http://www.dec.ny.gov/>.

**“New York City Department of Environmental Protection (NYCDEP)”** refers to the city agency that governs environmental compliance, water and wastewater operations, environmental planning and assessment, and administers the Environmental Control Board. Information regarding NYSDEC can be found on the web at <http://www.nyc.gov/html/dep/html/home/home.shtml>.

**“Occupational Safety and Health Administration (OSHA)”** refers to the federal agency that regulates workplace safety.

**“Project Representative”** refers to representatives of Columbia University performing the overall management of the project.

**“Project Site”** refers to the property owned, leased by, or under the control of Columbia University on which the Contractor activities related to the project are being conducted. This includes contiguous areas entering the site and locations where Contractors may temporarily store materials related to the project. The Project Representative must delineate the project site before work activities.

**“Radiation Safety Office (RSO)”** refers to the Columbia University department that ensures the implementation of all protective measures necessary to guarantee that doses from ionizing radiation to patients, visitors, students, faculty, and staff on campus, as well as to the community at large.

**“Safety Data Sheets”** refers to a document containing information on the potential health effects of exposure to chemicals or other potentially dangerous substances and safe working procedures when handling chemical products.

**“Worker(s)”** refers to persons hired by Columbia University, Contractors, or subcontractors performing work at the project site.

## **1.0 General Information**

Columbia University is dedicated to supporting its core educational and research missions by maintaining a safe, beautiful, and functional campus environment. Columbia University comprises laboratories, classrooms, studios, medical and dental clinics, offices, and housing for faculty and students.

The Contractor Compliance Guideline (“Guideline”) applies to any work at Columbia University or Columbia-owned, leased, and/or managed property.

All Contractors performing work at Columbia University must comply with all applicable federal, state, and local regulations. This Guideline is not intended to replace the contractor’s compliance responsibilities with any applicable regulation.

The contractor should contact their Project Representative if they have any doubts or concerns about any project-related task, including the material imparted in this Guideline.

### **1.1 Inspections**

Contractor work areas may be observed and inspected at any time. Any deficiencies noted during the inspection must be corrected immediately. Violations may result in dismissal from University property and exclusion from future projects.

## **2.0 Contractor Receipt Acknowledgement Form**

Contractors shall evaluate the contents of this document as it pertains to the work to be performed on Columbia properties. Contractors shall ensure that their employees and subcontractors understand these requirements. The information in this document should be communicated and jointly enforced by Columbia personnel, Contractors, and subcontractors. In addition, Contractors shall implement a documented disciplinary process for all violations.

An authorized Contractor representative must complete the online acknowledgment section of this document to verify having attended the CU annual training, has received an electronic version of this document, and acknowledges their responsibility to disseminate all information contained within to all employees and subcontractors. No Contractors will be authorized to perform work until completing the digital verification.

### **2.1 Safety Orientation and Training**

Contractors are required to attend periodic Columbia University training. When training is required by law or regulation (e.g., oil handling personnel, hazardous waste operations, or asbestos workers), the contractor shall ensure that only trained workers are assigned to work. Contractor personnel may be required to complete specific University-specific training before beginning work. Evidence of training shall be submitted along with the Health and Safety Plan (HASP) to the Project Representative before commencing contract work. Contractors are responsible for continuous monitoring of their operations and equipment to ensure a safe, healthy, and environmentally sound work environment. The Project Representative will maintain a current list of orientation attendees that will serve as formal evidence of Contractor training.



## 2.2 CONTRACTOR CODE OF CONDUCT

### INTRODUCTION

Columbia University (CU) is committed to conducting business in a manner that meets the highest level of professionalism, integrity, and moral and ethical standards and complies with all applicable laws. CU expects that its Contractors will share the same commitment.

CU has a zero-tolerance policy for wrongdoing. To fulfill its mandate of protecting its students, staff, faculty, and visitors, CU expects the highest standard of integrity, professionalism, and honesty from anyone performing work on CU property.

The business practices of Contractors and their Representatives reflect on CU and impact the academic and work environment at CU. Therefore, failure to strictly comply with the standards outlined in this Contractor Code of Conduct (Code) and all applicable local, state, and federal laws will result in termination.

CU may immediately remove anyone who behaves in an unlawful manner or is inconsistent with this Code of Conduct from CU property.

### DEFINITIONS

**Contractor** - any individual or organization, including but not limited to consultants, suppliers, manufacturers, contractors, agents, bidders, or proposers with whom CU conducts business or is pursuing a business relationship.

**Representative** - a subcontractor, employee, agent, or other entity performing work on behalf of the contractor.

### GENERAL

Contractors and their Representatives play an essential role in CU's ability to provide quality services to our students, staff, and faculty. This Code sets forth the standards of conduct to which Contractors and their Representatives must adhere while conducting business with or on behalf of CU. Contractors will take appropriate steps to ensure that the Code is communicated to, understood, and followed by their Representatives while doing business with or on behalf of CU.

### PROHIBITED BEHAVIORS

These behaviors are prohibited at all times and are subject to contract termination or expulsion of a Representative from CU property, as deemed appropriate by CU:

Smoking, tobacco, and controlled substances - within CU campus confines or within 50 feet of entrances, operable windows, or outdoor air intakes. Use of tobacco or other controlled substances within the job site and the building is not permitted.

Alcohol and Drug Use - While performing work for CU or on CU property, Contractors and Representatives may not consume, use or be impaired by alcohol or illegal drugs or be under the influence of prescription drugs that impair a person's ability to perform work safely and efficiently.

Workplace Violence - Acts or threats of physical violence, intimidation, and harassment.

Weapons – possession, use, or storage of any weapon on any CU premises or job site, in CU vehicles, or when contractor is engaged in performing work for CU. The term “weapon” includes firearms, ammunition, and explosives but does not include tools used for legitimate business purposes.

Hostile Environment – any actions, gestures, statements, or other behaviors that create a hostile environment for workers or anyone on campus.

Other Inappropriate Behaviors – Any behavior not explicitly stated above but considered unacceptable by social or industry standards.

#### APPEARANCE

Contractors and their representatives are to wear professional clothing that is appropriate for a distinguished institution and the work being performed. Offensive, political or controversial messages on clothing in any location visible to others or on tools or equipment are prohibited. Proper personal protective equipment (PPE) for the task being performed is always to be worn. Additionally, all CU policies regarding COVID-19 are to be followed.

#### INTERACTIONS WITH STUDENTS, STAFF, AND FACULTY

Most work does not require interaction with CU students, faculty or staff. Contractors should avoid interacting with anyone not directly related to the work being performed.

Contractors and Representatives that need to work in direct contact with CU constituents shall:

- Be accurate and truthful when providing information.
- Carry proper identification at all times and show it to CU constituents upon request.
- Be mindful that the conduct, demeanor, and actions of Contractors and Representatives may affect the reputation of CU.
- Perform the services in a polite, professional, efficient, and competent manner.
- Not represent to customers that they are employees of CU or its subsidiaries.

#### THE ENVIRONMENT

CU is committed to conducting its business in an environmentally responsible manner. Contractors and their representatives must comply with all applicable environmental laws and regulations and operate in a way that minimizes the negative environmental impact of their products and services.

#### PREMISES SECURITY

While on CU premises, Contractors and representatives must comply with all CU policies communicated to Contractors concerning CU’s physical security procedures.

### **3.0 General Safety and Security Rules**

The contractor is responsible for establishing and implementing a Health and Safety Plan (HASP) for their employees and conducting regularly scheduled safety inspections to ensure conformance with the Plan. The contractor will submit a written or electronic copy of their company’s HASP to the Project Representative. In addition, the contractor is responsible for completing any required regulatory training and certifications before any project and must furnish proof of completion of such training if required by Columbia University or any regulatory agency.

### **3.1 Security**

Contractors are always required to wear ID badges in plain sight while on Columbia University premises. Personnel without a proper badge will be questioned regarding their presence and may be asked to leave the premises. The Project Representative must be immediately notified of any visitors to the project site. Visitors must always be escorted.

### **3.2 Prohibited Items**

Construction worksites are notably higher hazard than the general workplace. Columbia University is a drug and alcohol-free zone and prohibits the possession, sale, or use of the following:

- alcoholic beverages
- all marijuana products
- illegal drugs
- firearms, ammunition, and other weapons.

Columbia may refuse entry to any person possessing such items or suspected of being under the influence of alcohol or drugs. Taking prescription medication in the manner a physician prescribes is an exception, provided it does not impair a person's ability to perform their job.

### **3.3 Housekeeping /Maintenance**

Contractors are responsible for maintaining high standards of cleanliness and orderliness. Debris removal must be addressed daily.

Specific requirements include, but are not limited to the following:

- Support temporary cords or hoses at least 8 feet above the floor when routed across aisles. If this is not possible, cords and hoses shall be secured to the floor and protected from damage to eliminate trip hazards. In addition, the area shall be appropriately marked with warning signs or traffic cones to alert pedestrian traffic.
- Place waste materials in proper containers. The contractor will keep work areas clear of all debris. Contractors will remove all waste materials and debris daily.
- Place equipment and materials so as not to block exits, aisles, doors, stairs, ladder ways, emergency equipment, or electrical panels.
- Remove nails and other sharp objects protruding from surfaces and sweep up loose nails and screws.
- Do not store tools and equipment above work areas. For example, workers shall not leave materials in plenum spaces or utility rooms.

### **3.4 Protecting Building Occupants from Construction Activities**

Contractors conducting construction/renovation activities shall ensure that the health and safety of the faculty, staff, students, and visitors are not adversely affected. Exposure to physical and health hazards shall be minimized using engineering controls. Containment barriers, barricades, signs, and localized exhaust ventilation shall be used.

Since the hazards associated with construction and renovation often change as a project progresses, the contractor must conduct periodic hazard assessments to anticipate and plan for these changes.

Whenever it is necessary to maintain public use of work areas (such as sidewalks, ramps, entrances to buildings, lobbies, corridors, or stairways), the public shall be protected with appropriate guardrails, barricades, temporary fences, overhead protection, or temporary partitions. The public must also be adequately protected from any work created hazards, such as excavation. Appropriate warnings, signs,

warning lights, and instructional safety signs shall be conspicuously posted and placed where necessary.

The contractor must cover all holes, excavations, trenches, and other areas where anyone might fall.

### Student-Occupied Spaces

Entering a student room without prior approval and an escort from a designated University official is prohibited. In occupied residence halls, the student union, student commons, dining halls, and other facilities where students gather, Contractors must be sensitive that the safety and comfort of hundreds of students and staff can be affected by seemingly minor actions.

### **3.5 Smoking**

Smoking is prohibited in any indoor area, on all campus grounds, and in all University vehicles. "Smoking" refers to the use of cigarettes, electronic cigarettes, vaping devices, cigars, pipes, and similar products. Consult your Project Representative for your campus' specific requirements.

### **3.6 Traffic Safety and Parking**

Contractors shall observe speed limits, traffic signs, and other traffic rules. Contractors shall park in areas designated by the Project Representative. Vehicles parked in fire lanes, reserved areas, or roadways are subject to towing. Contractors may not park or drive on sidewalks or landscaped areas unless permitted by the Project Representative. Columbia University is not responsible for Contractor vehicles or their contents. Due to limited parking at Columbia, non-essential vehicular traffic must be minimized.

Service vehicles, material delivery, and construction equipment needed on site must be coordinated in advance with the Project Representative.

Contractors that are provided a permit to park their vehicles on campus walkways and pedestrian thoroughfares are required to place safety cones around the vehicle to increase visibility and protect pedestrians.

No riders are permitted on moving equipment, rigging, or loads.

### **3.7 Storage at Job Site**

It is the responsibility of the contractor to secure any materials or equipment at the job site. The Project Representative shall approve industrial and construction materials to be stored outside after evaluating security and environmental issues, including secondary containment requirements, stormwater runoff concerns, the potential for water damage or mold growth on construction materials, etc. The Project Representative may designate a storage area for industrial and construction materials or project-specific storage limitations. Mechanical and electrical equipment rooms may not be used for storage. The Project Representative shall approve storage areas in advance of materials being stored.

### **3.8 Falling Object Protection**

Contractors shall provide adequate protection where there is a potential for endangering persons below an elevated work site. Such work areas shall be isolated to protect persons from falling objects. In addition, the contractor shall barricade and monitor a work area of a twenty-five (25) feet minimum radius to prevent unauthorized personnel from entering the hazardous area. If the contractor cannot establish this secure area due to operational constraints, the work must be scheduled during off-hours.

## **4.0 Emergency Management**

In an emergency, all Contractor personnel must know how to protect themselves and provide immediate notification to emergency response organizations (fire, police, medical, etc.). The Project Representative

will notify the contractor of any University-wide alerts.

In an emergency, the contractor must immediately report the emergency by calling 911, Public Safety, and the Project Representative. When reporting an emergency, provide the following:

- Your name, phone number, and location
- The location of the incident (building name, floor, and room number)
- Nature and extent of the incident (injury, accident, spill, smoke/fire, damage, etc.)
- The name and amount of the material spilled (if applicable)
- The safest route to the spill (if applicable)

The contractor shall wait at the nearest location deemed safe until emergency response personnel arrive.

#### **4.1 Investigation and Reporting of Accidents and Incidents**

In order to maintain a safe and secure work environment, Contractors shall report any incidents or observations that may affect the safety of their personnel, Columbia employees, or Columbia students. All incidents and injuries, including near-miss incidents, **must be reported immediately to the Project Representative**. An Incident Report Form that is used by your firm must be completed **and submitted to the Project Representative within 24 hours of the incident/injury**. Incident investigation may begin promptly after the accident or incident.

Site Safety Coordinators and Managers must immediately report applicable incidents to the Department of Buildings.

### **5.0 Fire Safety**

The contractor should be familiar with the location of fire alarm activation devices (pull stations), portable fire extinguishers, and at least two exit routes from the work area. In the event of a fire, Contractors shall activate the nearest fire alarm station and call Public Safety.

Contractor-supplied fire extinguishers shall be marked, have a FDNY-approved tag, and have a current inspection.

Only the Fire Department shall open a fire hydrant or standpipe. Contractors may not use fire hoses.

In the event of a fire or a smoke condition at a project site, Contractors are required to immediately stop all work activities, listen to all announcements, and follow instructions. Contractors are to evacuate to Columbia University's areas of refuge for assembly, headcount, and further instructions from the Project Representative or authorized Columbia University designee. If a Contractor is missing, the Project Representative will notify Public Safety immediately.

In case of fire, remember the acronym **RACE**:

**R**escue anyone in danger

**A**larm activation

**C**onfine fire or smoke condition by closing doors leading into the affected area

**E**xtinguish the fire or Evacuate from the area

#### **5.1 Certificates of Fitness**

The contractor is responsible for obtaining all applicable FDNY Certificates of Fitness (COF) before commencing any work activities at Columbia University. The COF holder for the relevant activity must carry the COF on their person.

## 5.2 Hot Work Permits

To ensure a safe work environment and minimize the potential incidence of property damage from hot work operations, CU administers its Hot Work Program per FDNY requirements. All contractors performing Hot Work operations on a CU construction site must possess an FDNY Hot Work Operations Permit specific to the DOB Work Permit for the project. A copy of the FDNY permit must be submitted to the Project Representative before a site-specific CU Hot Work Permit is requested. (See each of the campus-specific procedures for details.)

## 5.3 Compressed Gas Storage

All compressed gas use and storage must be in accordance with NYC Fire Code. Specifically:

- All cylinders of compressed gases used at Columbia University must be secured in an upright fashion and stored a minimum of three feet away from any egress areas. In addition, cylinders must not be attached to any plumbing or electrical conduits.
- All cylinders must be appropriately labeled with the container contents.
- All cylinders not in use must have the valves wholly closed and the valve protection caps secured.
- All cylinders must be stored in such a manner as to prevent incompatibles from coming in contact with each other. Cylinders should be kept away from other potential hazards, including:
  - Ledges, platforms, and elevators
  - Temperature extremes
  - Heating systems
  - Sources of ignition
  - Potential sources of leaks or corrosion
  - Falling objects

## 5.4 Gasoline Powered Equipment

The use of gasoline-powered and portable heating equipment requires written approval from the Project Representative and the campus Fire Safety Officer. Care should be taken when using this type of equipment outdoors so that the exhaust does not return into the building through air intakes. Gasoline must not be stored at the project site.

## 6.0 Laboratory Safety

Columbia University is committed to ensuring compliance with laboratory regulations, standards, and best practices.

### 6.1 Laboratory Clearance Process

Columbia University EH&S oversees the lab clearance process prior to any work beginning in any laboratory or other space where biological, chemical, or radioactive materials are used or were previously used. Completion of clearance is evidenced by signs and stickers posted on doors and equipment.

## Columbia University Clearance Process

Equipment designated for relocation or disposal must be properly decontaminated before any work is performed. Similarly, laboratory equipment that is being handled by a commercial mover must be certified free of contamination. An EH&S clearance sticker is valid for a limited duration from the issuance date.

The Project Representative must determine, with the help of the vacating “occupants” and EH&S, if the space or equipment needs to be cleared. For example, if equipment was used in an office and has no exposure to chemical, biological, or radioactive materials, then clearance is not necessary.

If the laboratory equipment has been used with or exposed to any combination of radioactive, biological or chemical agents, the following steps must be taken:

**Radiation Safety:** Occupants must ensure that any equipment or surfaces used with or potentially contaminated with radioactive materials are decontaminated and cleared. All equipment containing radioactive sources must be cleared and disposed of through EH&S’s Radiation Safety Team.

**Biological Safety:** Occupants must ensure that any equipment or surfaces used with or potentially contaminated with biological material are decontaminated with a freshly prepared 10% bleach solution. All exposed surfaces of the equipment or contaminated furniture must be wiped down with the bleach solution. All Regulated Medical Waste (RMW) must be collected in rigid containers lined with red bags imprinted with the universal infectious waste biohazard symbol. Any sharps or materials contaminated with potentially infectious agents that may puncture a red bag must be deposited in a sharp’s disposal container. All decontamination procedures and physical removal of biological materials and waste must occur prior to clearance being issued.

**Chemical Safety:** Occupants must ensure that chemical contamination is removed through a thorough surface cleaning with a soap solution, mild detergent or other appropriate decontamination solution. If an item is too contaminated, or if decontamination cannot be performed safely on the equipment. A University-approved Contractor will assist with decontamination. Any hazardous materials or hazardous wastes must be removed from the area and properly disposed of through EH&S prior to any work beginning at the project site. All decontamination procedures and physical removal of chemicals and waste must occur prior to clearance being issued.

**Environmental Safety:** The Project Representative and Facilities will ensure that any equipment containing refrigerants, such as air conditioners or refrigerators are drained prior to disposal. In the case of equipment with oils, the owner of the equipment must remove and properly dispose of the oil through EH&S prior to discarding the equipment. Refrigerant removal is managed by Facilities. The Project Representative will contact Facilities to arrange for refrigerant recovery.

**Under no circumstances shall a Contractor use material in an application banned under the Toxic Substances Control Act (40 CFR 700-799).**

### 6.2 Radiation Safety

Contractors who propose using equipment that emits radiation must request approval from EH&S before bringing such equipment to any project site.

Any questions or concerns that arise during a project that involves a radiation area should be brought to the attention of the Project Representative immediately.

#### Radioactive Materials Security

A few important reminders when working on projects that may include access to areas that contain radioactive materials:

- Unauthorized entry into radiation use areas is not permitted. Entrances to radiation use areas are marked with appropriate signage.
- Doors of unoccupied restricted areas shall be locked, as shall windows where ingress by

this means is possible.

### Management of Radioactive Materials Encountered at Project Sites

Most of the smoke detectors at Columbia University are photoelectric (non-radioactive), however, Contractors may encounter ionizing (radioactive) smoke detectors. In addition, photo-luminescent “Exit” signs may contain radioactive material. Devices containing radioactive materials are required to have a radiation label. The Project Representative will coordinate with EH&S for disposal. Never dismantle smoke detectors or exit signs.

## **6.3 Biological Materials**

Regulated Medical Waste (RMW) refers to materials that may be contaminated with blood, bodily fluids, or other potentially infectious materials and are often referred to as “biohazardous,” “potentially infectious,” or “regulated medical” waste. Laboratory activities at Columbia University involving potentially infectious biological materials, including human blood, tissues, or cells, or potentially infectious microorganisms, such as bacteria or viruses, are regulated by the OSHA Bloodborne Pathogens Standard and University Policy. The universal biohazard symbol indicates the presence of these materials in a laboratory or other area. This symbol may be found on red bags, red sharps containers, or large grey biological waste disposal bins. While working on University property, Contractors must adhere to the requirements of the Bloodborne Pathogens Standard and all applicable University Policies, including:

- Contractors must not enter a laboratory or area that is marked by the biohazard symbol or handle any biological materials unless it is part of the specifically contracted work to be performed.
- Contractors must not handle red bags, sharps, sharps containers, or large biological waste disposal bins unless it is precisely part of the contractor’s scope of work.
- Any Contractor who unexpectedly encounters biological materials on a project site must exit the project site and contact the Project Representative and EH&S.
- Contractors must take appropriate measures to protect their employees from exposure to bloodborne pathogens by advising them to avoid contact with all materials in and around research laboratories.

While most materials commonly encountered in laboratories do not pose a hazard when handled appropriately, exposure may occur through a spill/release, a direct splash to the eyes, nose, or mouth, or sustaining a cut or puncture wound. Therefore, while working in areas where hazardous materials are/were used or stored, awareness and appropriate precautions should be taken.

## **6.4 Laser Safety**

Laser-emitting tools and equipment are standard in many work situations. Lasers in construction tools are generally lower powered and designed to be safe, but when misused or mishandled, they can pose a hazard. OSHA Regulations specify generalized rules for the safe use of lasers in the construction industry. These include user training, posting and labeling requirements, laser safety goggles, and maximum exposure intensities.

- Contractors should review any process or equipment using lasers with their Project Representative.
- Contractor use of Class 3b and 4 laser systems at Columbia University must be approved by EH&S.
- Contractors must post laser use signage at the project site.
- Contractor evidence of laser safety training on the specific laser being used on a project must be



- furnished to the Project Representative upon request.
- Lasers should never be directed toward the eyes or near reflective surfaces that may redirect lasers towards the eyes.
- Product warning labels on the laser device must not be removed or obscured in any way while working on a project site.

## 7.0 Environmental Safety

Columbia University is committed to ensuring compliance with environmental regulations, standards, and best practices.

### 7.1 Hazardous Materials Management

In the course of any project, materials may be used that may be considered hazardous to people, wildlife, or the environment. These include but are not limited to materials that Contractors use every day, such as oil-based paints, chemical paint strippers, solvent-based waterproofing agents, and compressed gases, such as acetylene and aerosol cans.

All containers and cylinders must be appropriately labeled and stored to prevent spills or releases. The contractor must make a Safety Data Sheet (SDS) available for each chemical and hazardous product used at a job site. The following general guidelines apply to working with hazardous materials at a project site:

- All containers must be stored upright and closed unless the material is actively being used. No product containers may be left open after the workday is complete at a job site. All cylinders must be properly secured at all times.
- Materials should be stored within secondary containment and away from drains and penetrations when feasible.
- In the event of a spill or release, all drains and/or penetrations in the area should be protected or covered. Spills must be contained and reported to the Project Representative.
- Any malodorous materials should be mixed in a well-ventilated area, away from air intakes, and in a fashion that prevents release. Such materials must be coordinated in advance with the Project Representative to ensure adjacent occupants are not affected.

#### **In the event of a spill of any hazardous materials, the following procedures must be followed:**

1. The contractor must immediately stop all work activities and isolate the area (e.g., close the door, string caution tape, etc.) to prevent the spilled material from being dispersed and exit the area. All penetrations and drains near the spill must be protected.
2. The contractor must immediately notify the Project Representative and furnish them with a detailed incident report.
3. The Project Representative must assess the situation, determine what action is required, and coordinate all remediation activities in the work area.
4. The contractor must not attempt to dispose of the spilled material.

### 7.2 Hazardous Waste

Hazardous waste generated at Columbia University must be stored in compatible containers, properly labeled, and securely closed when not in active use. The project representative, the Contractor, and Facilities Compliance shall determine the disposal of hazardous waste generated during a project.

A designated Columbia University representative must sign any shipment of regulated waste from Columbia University. Hazardous waste may not be transported by the contractor or relocated from the point of generation unless the contractor is specifically hired to perform such actions. EH&S may only assign EPA Identification Numbers.

### **7.3 Universal Waste**

The contractor may be responsible for handling and managing universal wastes as part of the project demolition phase. Universal waste that a Contractor can expect to encounter at project sites may include fluorescent lamps, mercury-containing equipment, and batteries. Universal waste is considered hazardous waste with less stringent regulations. However, Universal waste may not be disposed of as regular trash.

Before demolition, the Project Representative determines what type of universal waste may be present at a project site and ensures that properly labeled Universal waste containers are available.

Fluorescent lamps are to be stored intact in a fiber light tube container, which can be obtained through a Columbia University-approved vendor. Universal waste is not permitted to accumulate on floors and must be stored in labeled, closed containers. A broken fluorescent lamp is considered hazardous waste and must be managed as such. If a fluorescent lamp breaks, contact the Project Representative immediately.

### **7.4 Fluorescent Light Ballasts**

Fluorescent light ballasts manufactured before 1978 are known to contain polychlorinated biphenyls (PCBs). Therefore, all ballasts must be appropriately handled when light fixture removal is part of a project.

Ballasts containing PCBs are managed as “regulated” waste under the Toxic Substances Control Act (TSCA). Therefore, any unmarked ballast must be treated as PCB containing. Columbia University requires that all PCB containing ballasts removed from light fixtures be placed in a pre-labeled collection container.

For ballasts known not to contain PCBs the Project Representative may choose to recycle ballasts with Columbia University approved scrap metal recycler.

### **7.5 Hazardous Scrap Metal and End-of-Life Electronic Equipment**

End-of-life electronic equipment and office equipment including, but not limited to, printers, copiers, CRT monitors, and CPUs may qualify as hazardous waste. This equipment is sent to an approved vendor for recycling. Arrange with the Project Representative to remove **and recycle** used electronic equipment before the commencement of any project, approximately three weeks in advance.

### **7.6 Spill Prevention Control and Countermeasures (SPCC)**

A Columbia University Spill Prevention Control and Countermeasures (SPCC) Program establishes University-wide procedures for the prevention, detection, and reporting of spills and/or releases of petroleum and oil. When working on Columbia University property, a Contractor must adhere to SPCC protocols, including the following:

- Notify the Project Representative if oil will be stored or used on the site in quantities of 55-gallons or greater.
- Provide equipment (e.g., secondary containment pallets, absorbent pads, absorbent booms, and speedi-dry) suitable and sufficient to control a potential spill/release.
- Use appropriate protective measures such as double containment, inspections, employee training, and overflow protection during the use, storage, or handling of petroleum products.
- Adequately train Workers in spill response and notification procedures.
- Complete a detailed incident report in the event of a spill/release to be submitted to the Project Representative.

### **7.7 Water Intrusion and Mold Recognition**

Contractors are responsible for preventing water intrusions. All water leaks either caused or encountered by Contractors are reported to the Project Representative and controlled immediately. In

**addition, contractors are responsible for ensuring that windows are shut, and window openings are properly sealed off hours.**

When water intrusion has occurred, all affected materials must be wholly and promptly dried or removed from the premises. Contractors who encounter mold or conditions suspected of being mold shall contact the Project Representative.

### **7.8 Asbestos-Containing Materials**

Before a renovation project, the Project Representative will have a certified asbestos abatement contractor abate all asbestos. However, it is not uncommon for ACM to be concealed behind walls, above ceilings, under carpets and floor tiles, or be otherwise undetected for abatement before a construction project. If presumed ACM is uncovered during the work of a project, stop work immediately and contact the Project Representative.

### **7.9 Lead-Based Paint and Stain**

Before the commencement of a renovation project, testing will be conducted by the Project Representative. If lead is determined to exist at the project site, a Columbia University authorized contractor will perform work to mitigate or remove it. If the contractor's work requires intrusive or dust-generating work on painted or stained surfaces that are not being removed (e.g., sanding, drilling, cutting, brazing, scraping, demolition), such work must be performed per OSHA's Lead Safety Standard.

For renovation projects occurring in child-occupied buildings or housing constructed before 1978 containing LBP, the contractor must be certified, and proof of training must be provided for all workers at the job site.

### **7.10 Refrigerant**

EPA Regulations require four types of certification for refrigerant handling and recovery.

- Type I technicians: for servicing small appliances
- Type II technicians: for servicing or disposing of high or very high-pressure appliances
- Type III technicians: for servicing or disposing of low-pressure appliances
- Universal technicians: for servicing all types of equipment

Technicians must provide a copy of their certification to the Project Representative before starting any work on refrigerant-containing equipment.

Technicians servicing appliances that contain 50 or more pounds of Ozone Depleting Substances (ODS) must provide the owner with an invoice that indicates the amount of refrigerant added to the appliance. Proper records showing any refrigerant recovery, additions, leak discoveries and repairs, leak verifications, and other maintenance for each unit serviced must be presented to Project Representative after service has been performed.

Consult with your Project Representative for campus-specific procedures.

### **7.11 Mercury Contamination Identified During Construction**

Mercury may be encountered on project sites when removing a sink trap or cutting pipes and under floor tiles and during casework and cove base removal. Mercury spills are hazardous and must be cleaned up immediately.

#### **When opening or removing plumbing pipes or traps in a laboratory building:**

- Wear the appropriate personal protective equipment (PPE), such as gloves and protective eyewear for the work activity.
- Place a bucket or suitable container under the pipe's opening or trap to collect any liquid.

- Collect all liquids and check for visible mercury and needles and glass slides in the liquid. Use a flashlight to check the interior surface of pipes and traps for visible mercury.
- If pipes, traps, and liquid are free of visible mercury and/or needles and glass slides, dispose of the liquid and dispose of pipes and traps as general debris.
- If mercury and/or needles and glass slides are found, stop all work immediately and follow campus-specific procedures for dealing with uncontained mercury as set forth below.

**If mercury is uncontained or has spilled:**

Cleanup of mercury spills is to be performed by qualified individuals with the appropriate materials, PPE, and training to handle such a task.

1. Immediately stop all work activities.
2. Isolate and secure the area (close door, string caution tape) to prevent the suspect material from being disturbed and dispersed.
3. Exit the immediate area of contamination, but remain in the adjacent area for evaluation by EH&S.
4. Immediately contact the Project Representative to complete an incident report and provide all pertinent information.
5. Do not attempt to clean up or dispose of the suspect material.

## **7.12 Air Emissions**

Combustion equipment uses fuel to heat, produce energy, or incinerate, such as boilers, generators, and incinerators. The contractor must inform the Project Representative if there are any changes to equipment that may affect overall air pollutant emissions resulting from fuel conversions, burner replacements, or any other maintenance, repair, or replacement of equipment that could impact overall air emissions.

Combustion equipment of any type is not permitted to operate inside or near any Columbia University building air intake, and care must be taken to operate such equipment in well-ventilated areas. The use of low sulfur diesel fuels, diesel particulate filters, or fuel-efficient equipment is required at project sites. When possible, electricity should be used from Columbia University power sources rather than fuel-supplied generators.

Contractors must not cause or permit the engine of a motor vehicle to idle for longer than three minutes when parking, stopping, or standing.

## **7.13 Nuisance Odors**

The contractor shall carry out effective measures whenever and as often as necessary to prevent nuisance odors from all project activities. For example, enclosure seals and forced ventilation may be required to avoid odor nuisance.

The contractor shall notify the Project Representative when potential odor-causing activities are scheduled. All possible odor-causing activities must be conducted after regular business hours.

The contractor shall provide air monitoring equipment, ventilation equipment, and engineering controls to document and maintain acceptable indoor air quality. Materials of concern include products that emit highly volatile organic compounds (for example, solvents), certain glycol ethers considered reproductive hazards, epoxy-based products, byproducts of combustion, and isocyanates.

If suitable indoor air quality cannot be achieved, the contractor shall schedule activities outside of regular working hours and protect their employees with an OSHA compliant Respiratory Protection Program.

## **7.14 Dust Control**

The contractor shall make reasonable efforts to control dust emissions on indoor and outdoor project sites. These efforts may include the use of:

- Water or another environmentally safe dust suppressant on outdoor sites.
- Dust containment systems with walls & barriers, particularly in clinical and research areas.
- Dust control mats outside of indoor work areas.
- Negative pressure in indoor spaces.

## **8.0 Occupational Safety**

Occupational Safety is related to the standards and best practices of the Occupational Safety and Health Administration. (OSHA)

### **8.1 Hazard Communication**

The Hazard Communication Standard requires that all Workers are aware of:

- The hazardous chemicals that are present in the products they use.
- The effects of overexposure to such hazardous materials and how to protect themselves from overexposure.
- The correct fashion in which to handle such materials in the event of a spill or accidental release.
- The means and methods by which this information will be communicated to Workers.

Columbia University is required under the Hazard Communication Standard to inform Contractors of existing potential hazards during their work at the University.

The contractor must keep an inventory of products containing hazardous chemicals and keep safety data sheets (SDSs) of these products onsite. The contractor must provide the locations of the use and storage of such products to their employees and Columbia University. Under no circumstances may the Contractor store chemicals and/or other hazardous products in areas outside of the project site. Long-term storage of products (beyond the specific project duration) is prohibited.

### **8.2 Personal Protective Equipment (PPE)**

It is the sole responsibility of the contractor to provide appropriate PPE to their employees and ensure its proper use. Hardhats are required on demolition projects and on project sites where there is a risk of a head injury.

Hazardous areas shall be appropriately secured, and proper signage posted to identify PPE required at the project sites and hazards posed by activities therein. If non-Contractor personnel need to enter or pass directly through the work area, the contractor shall provide appropriate PPE for such visitors. Typically, hard hats and safety glasses are recommended. Hard hats are required on demolition projects and on project sites where there is a risk of head injury.

### **8.3 Ladder Safety**

Working on and around ladders is a significant source of obstruction and injury in the workplace.

Defective and inappropriate ladders are not to be used on any project sites. All ladders must be in good condition and free of any broken or defective parts. Any ladders with broken or split rails, rungs, steps, or any defective parts must be removed from the property. Unsafe equipment noted at a project site will result in work shutdown and removal of such equipment from the project site.

### **8.4 Lockout / Tagout**

To ensure that energy hazards are properly controlled during construction, and servicing/maintenance of machines and equipment, the OSHA Lockout/Tagout Standard is enforced.

Before any service interruption, the contractor is to coordinate with the Project Representative to ensure that Columbia University understands the impact on infrastructure.

The contractor shall perform Lockout/Tagout procedures in conjunction with a Facilities employee who is also placing a lock. Contractors must supply their own identifiable locks and indicate on the tag the date the lock was placed, company name, and contact information.

## **8.5 Electrical Safety**

All permanent and temporary electrical work shall be done following the National Electric Code, OSHA, and other applicable standards.

## **8.6 Confined Space Entry**

The Project Representative will identify any permit-required confined spaces at the project site before the commencement of work activities.

The contractor shall develop and implement a confined space entry and rescue program specific to the project which meets or exceeds the OSHA Guideline. In addition, the contractor shall be responsible for maintaining all permits.

The Contractor's Confined Space Entry and Rescue Program must include:

- Description of the nature of the work
- Potential hazards and associated methods to eliminate or control the hazards
- List of Contractor's personnel assigned to perform work and their role: authorized entrant, entry attendant, fire watch, rescue
- Evidence of training of contractor's employees for Confined Space Entry
- Safety data sheets for all products being used

## **8.7 Scaffolding**

Contractors whose work cannot be performed from ground level or other solid construction must take precautions to ensure the safe performance of such work. All scaffolding, staging, and work platforms must satisfy the applicable DOB and OSHA regulations and manufacturer's erection requirements. The use of site-built staging or scaffolding is not allowed unless prior approval is obtained from the Project Representative.

The Building Code specifies that permits are required for all supported scaffolds 40 feet or more in height. Copies of the permit and applicable signs must be posted at a conspicuous location and visible to the public. Copies of the approved plans and all worker training records for the scaffolding must be maintained onsite.

## **8.8 Fall Protection**

All contract work done at Columbia University is subject to the fall protection standards set forth by OSHA as follows:

- 4 feet above a lower level, where there is a risk of falling into dangerous equipment or where there is a hazard from falling objects. (General industry)
- 6 feet above a lower level, where there is a risk of falling into dangerous equipment or where there is a hazard from falling objects. (Construction)

The fall protection measures must be appropriate to the work being performed.

**8.9 Machine Guards**

Any machine where machine parts, functions, or processes may expose an employee to injury must be guarded. Safeguards must prevent workers from making contact with dangerous moving parts, create no interference that impedes a Worker from performing a task, create no new hazards, and allow for maintenance of the machine.

It is strictly forbidden to override, bypass, disable, or ignore any machine guards when working at Columbia University.

**8.10 Excavation**

Excavation activities present the potential to encounter multiple hazards such as egress limitations, hazardous atmospheres, chemical or biological hazards, stability of adjacent structures, fall protection concerns, and cave-ins. Underground utilities may be present in areas of excavation. To protect underground utilities and assure public safety, mark out all utilities before excavation. All excavations must have a clear warning system to protect workers, pedestrians, and traffic from falls, accidents, and injuries.

The following steps must take place before beginning any excavation:

- The contractor shall notify the One-Call Notification System (NYC 811) 48 hours before any excavation
- Make a note of the ticket reference number, and the names of operators that the notice will be transmitted to.
- Delineate the work area with white paint. No other color may be used to delineate the work area
- Detailed information regarding utility mark outs can be found at the One-Call Notification System

If an underground storage tank is discovered during excavation stop work and notify the Project Representative.

**8.11 Noise**

Construction and demolition work often involves many tasks that produce excessive noise that may disturb the essential tasks required by the Columbia community. Every effort should be taken to mitigate unwarranted and excessive noise at the project site. The following items must be considered when performing activities at the project site that may generate excessive noise:

- Engineering and administrative controls for noisy equipment or activities
- Perform all core drilling, chipping, and drilling after routine business hours or at a time determined by the Project Representative

**8.12 Mobile Equipment/Work Platforms**

Unless permitted by the Project Representative, Contractors shall not use CU-owned or leased aerial work platforms. In addition, contractors shall ensure that only trained and authorized personnel operates mobile equipment.

**For more information or questions, contact your campus representative:**

Morningside and Manhattanville Facilities Compliance:	<a href="mailto:CUFCOMPLIANCE@Columbia.edu">CUFCOMPLIANCE@Columbia.edu</a>
Morningside and Manhattanville Capital Project Management:	<a href="mailto:CUFDR-FEEDBACK@Columbia.edu">CUFDR-FEEDBACK@Columbia.edu</a>
Columbia University Irving Medical Center Compliance:	<a href="mailto:CUMCFIRESAFETY@Columbia.edu">CUMCFIRESAFETY@Columbia.edu</a>

Please use the link below to acknowledge receipt and understanding of this guideline.  
[Contractor Compliance Guideline Verification Form](#)