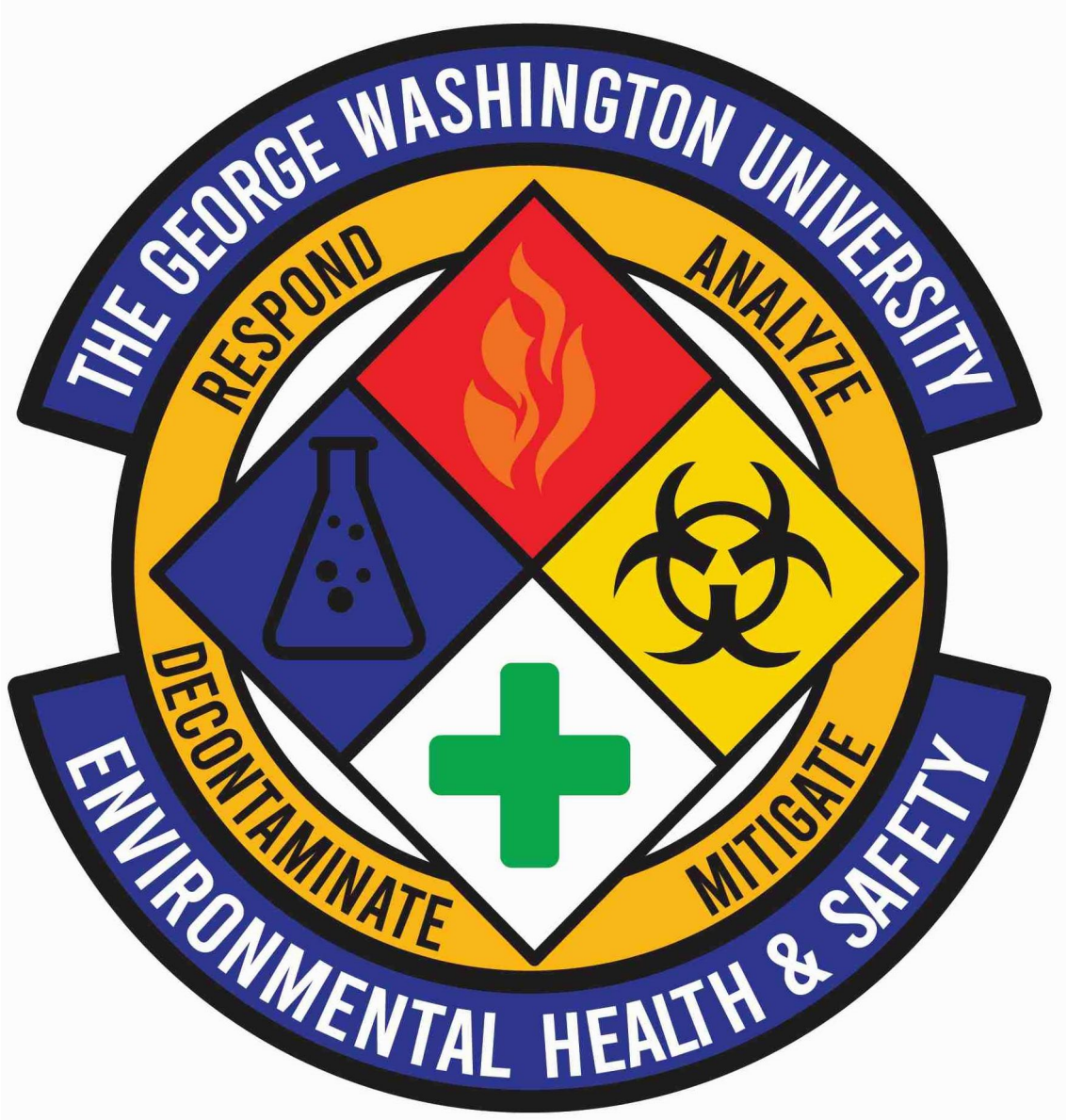
Contractor Safety Manual

The George Washington University



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INTRODUCTION

PURPOSE:

To establish safety standards for contracted individuals with a clear and concise understanding of the safety requirements and responsibilities needed while working on property owned by The George Washington University.

STATEMENT:

To reduce exposures that cause personal injury, property damage, and liability losses due to construction, renovation and demolition of University owned buildings and facilities.

1.0 OBJECTIVES

The major objectives of the Contractor Safety Manual are to:

- Protect employees, students, visitors, contractors, property, and the environment from potential hazards.
- Comply with all federal, state and local safety and environmental regulations.
- Comply with all applicable institutional policies.

2.0 RESPONSIBILITIES

2.1 Contractor Responsibilities:

- Contractors are expected to have their own safety programs implemented.
- Prior to starting a project, each contractor is required to review the work site and identify hazards that may occur while performing the job.
- Contractors are required to be able to communicate fluently with GW Facilities and Safety personnel.
- The contractor shall ensure all applicable laws and safety standards, including but not limited to the Occupational Safety and Health Act (the “OSH Act”) and related regulations.
- The contractor shall ensure individuals working at the site are trained and are aware of potential hazards. Contractors shall also ensure that these individuals are provided with proper safety equipment to prevent accidental injury in accordance with the OSH Act and all applicable rules and regulations.
- The contractor shall ensure all personnel follow guidelines set forth by OSHA, The George Washington University and any other applicable regulatory agencies.
- The contractor shall ensure all personnel follow all applicable laws, public health expectations including, but not limited to those related to COVID-19 or other infectious diseases.

3.0 HAZARD INFORMATION

- Prior to the start of the project, the contractor shall contact Facilities Planning, Construction Management to ensure that they have received pertinent information for the project including permits, floor plans, and utility information.
- The contractor shall be responsible for the removal and/or disposal of hazardous waste generated from the project. Hazardous waste generated from the project must be removed and disposed of in accordance with federal, state and local regulations. The Office of Environmental Health and Safety (202-994-4347) is available to address any related hazardous waste concerns.

All contractors performing inspections, construction, and repairs at the University are to comply with the requirements of this manual, at minimum, failure to adhere to these requirements may result in an immediate shutdown of the work site.

1 ASBESTOS

PURPOSE

To inform contractors of their responsibilities under the University's Asbestos Management Program.

ASBESTOS-CONTAINING MATERIALS (ACM)

University buildings built pre-1980 are assumed to contain asbestos unless the contractor is provided with information by the University's Office of Environmental Health and Safety certifying that it does not. Types of ACM found in university buildings include but not necessarily limited to:

- thermal system insulation (pipe, boiler, breaching, fume hoods)
- fireproofing (spray-applied insulation, fire doors)
- compounds (caulking, mastics, adhesives, plaster, joint compound)
- flooring (vinyl floor tile, sheet goods, resilient)
- textiles (cloth, rope, fire curtains)
- cementitious (countertops, chalk boards, roofing and siding shingles)
- acoustical (ceiling and wall tile)

RESPONSIBILITIES

Before undertaking any projects of repair, renovation or construction, that may impact ACM, contractors shall:

- Request from the Project Manager the location of ACM in the work area.
- Ensure all work is compliant with all applicable federal, state, and local regulations and laws.
- Understand that if a suspect material is encountered, that they should immediately stop work and notify the Office of Environmental Health and Safety.
- In the event that asbestos is impacted, take all necessary precautions to protect University employees, students, and visitors from the exposure to asbestos fibers or contamination.
- Make certain that their employees and subcontractors have had the appropriate level of awareness training as required by applicable laws, regulations, and standards.
- If negative exposure assessments are mutually agreed upon, the contractor will perform the evaluation and provide their employees with the appropriate personal protection.
- Contact the Project Manager and/or Environmental Health and Safety with any questions regarding asbestos.

REGULATIONS

29 CFR 1910.1001; 29 CFR 1926.1101; 49 CFR 171-172; 40 CFR 61, Subparts A and M; DCMR Title 20, Chapter 8; and
any other applicable regulations.

ACCOUNTABILITY

Contractors will be responsible for complying with the above guidelines and for communicating the information to their employees and subcontractors. This includes the implementation of policies and procedures including education of employees. All work shall be performed in accordance with all applicable laws and regulations.

2 BARRICADING AND FENCING

PURPOSE

A safe and accessible path-of-travel shall be provided for all pedestrians, including those with disabilities, around and/or through construction sites. Barricades act as warning devices, alerting others of the hazards created by construction activities, and should be used to control traffic, both vehicular and pedestrian, safely through or around the work site.

ACTIVITIES

While barricades shall be used wherever necessary for the physical protection of people or property and when required by applicable laws and regulations. The following is a list of some activities where their use may be required:

- Wherever construction debris is dropped without the use of an enclosed chute.
- Areas with temporary wiring operating at more than 600 volts.
- Work areas for electrical equipment with exposed, energized parts.
- The swing radius of the rotating superstructure of cranes or other equipment.
- Wherever equipment is left unattended near a roadway at night.
- Excavations.
- Areas used for the preparation of explosive charges or blasting operations.
- Street openings, such as manholes.
- Construction areas in energized electrical substations.

RESPONSIBILITIES

The contractor shall:

- Erect and maintain, until the project is completed, proper barricades including fencing material, traffic cones, A- frames, caution tape and temporary curb ramps complying with all access codes and regulations at all closed crosswalks and existing closed curb ramps.
- Obtain all applicable permits required by appropriate regulatory bodies.
- Furnish, erect, and maintain all necessary signs, barricades, lighting, fencing, bridging, and flaggers that conform to the requirements set forth by applicable law and regulations.
- Ensure that no construction materials be stored and/or placed on the path-of travel.
- Maintain the construction barriers in a sound, neat, and clean condition.
- Not occupy public sidewalks except where pedestrian protection is provided or they get a permit to do so from the DC government. The Contractor shall not obstruct free and convenient approach to any fire hydrant, alarm box, or utility box.
- Remove barriers and enclosures upon completion of the work in accordance with applicable regulatory requirements and to the satisfaction of the University.
- Provide protection and accessibility for pedestrians consistent with applicable laws and regulations, including the Americans with Disabilities Act.

REGULATIONS

29 CFR 1926 Subpart G - Signs, Signals, and Barricades, 29 CFR 1926 - Demolition, 29 CFR 1926 Subpart K - Electrical, 29 CFR 1926 Subpart N - Cranes, Derricks, Hoists, Elevators, and Conveyors, 29 CFR 1926 Subpart O - Motor Vehicles, Mechanized Equipment, and Marine Operations, 29 CFR 1926 Subpart P - Excavations, 29 CFR 1926 Subpart U - Blasting and Use of Explosives, and any other multiple requirements found in 29 CFR 1926.

ACCOUNTABILITY

With the unique nature of each project, certain issues may arise which have not been covered in the above guidelines. The contractor is required to review on a case-by-case basis, to ensure that complete, safe, usable and accessible paths- of- travel are maintained during construction.

3 CONFINED SPACE ENTRY

PURPOSE

To inform contractors of their responsibilities when performing confined space entry activities at the University. Workers must be protected from toxic, explosive, or asphyxiating atmospheres, and from engulfment when working in and around confined spaces.

Some common types of confined space entries include:

- Telecommunications manhole
- Steam manhole
- Water-meter manhole
- HVAC systems
- Crawlspace
- Injector pit
- PEPCO manhole
- Boilers
- Tanks

RESPONSIBILITIES

The contractor shall:

- Identify and obtain any required permits.
- Evaluate each confined space for the following:
    - Presence of explosive gases equal to or greater than 10% of lower explosive limit (LEL).
    - Oxygen Deficiency and Oxygen Enriched Atmospheres
    - Concentrations of Carbon Monoxide and Hydrogen Sulfide.
    - Electric shock, burns, walking/working surfaces, heat stress, noise hazards, and/or any other recognized hazard.
- Control potential hazards with the following measures:
    - Mechanical – Use proper lockout/tagout procedures when needed to prevent hazards within the confined space.
    - Ventilation – If exposed to harmful vapors or an oxygen deficient atmosphere exists; a ventilation fan shall be used for the duration of the job.
    - Slips and Falls – Use caution if shoes and /or ladders are wet or are oily. Inspect shoes prior to entry.
    - Burns and Heat Stress – The use of a ventilation fan will provide cooler temperatures. Use caution around hot equipment and avoid overexertion within the space. Take frequent breaks if needed.
    - To prevent an explosion, do not use equipment that may cause flame or sparks in an oxygen-enriched atmosphere.
    - Personal protective equipment (goggles, gloves, dust mask, respirator) shall be worn when a potential hazard exists.
- Obtain any available information about permit space hazards and entry operations from the Office of Environmental Health and Safety.
- Evaluate and monitor confined space hazards.
- Coordinate entry operations when employees are working in or near the area.
- Inform the Project Coordinator of entry procedures that will be followed and of any hazards identified or created.

- Provide documentation of their company's entry procedures to the Office of Environmental Health and Safety before work begins.

RESCUE OPERATIONS

In the event of an emergency requiring entry rescue services, the attendant shall immediately CALL 911. In the event of an emergency that requires non-entry rescue services, the attendant shall immediately call The George Washington University Police Department at (202) 994- 6111.

REGULATIONS

29 CFR 1910.146, Permit Required Confined Spaces

ACCOUNTABILITY

Contractors will be responsible for complying with the above guidelines and for communicating the information to their employees and subcontractors. This includes the implementation of policies and procedures including education of employees. All work shall be performed in accordance with all applicable laws and regulations.

4 INDOOR ENVIRONMENTAL QUALITY

PURPOSE

To inform contractors of their responsibility to minimize the impact construction-related activities have on indoor environmental quality at the University.

ACTIVITIES IMPACTING AIR QUALITY

Many construction-related activities generate and disperse contaminants that adversely impact indoor environmental quality. Some examples are listed below.

Activity	**Potential Contaminant/Physical Agent Produced**
Sanding and grinding	Dust, fibers & particulates
Roofing	Coal tar pitch volatiles
Flooring, painting	Volatile organic compounds
Welding and cutting	Lead, carbon monoxide, ozone
Demolition	Asbestos (See also Chapter 1, above)
Jack-hammering	Noise, vibration

RESPONSIBILITIES

Prior to performing construction-related activities including repair projects, contractors shall eliminate or minimize any potential contaminant/physical agent exposures by implementing the following procedures:

- Maintain good housekeeping habits to contain dust and construction debris. Use a HEPA filtered vacuum to minimize recirculation of contaminants.
- Implement engineering controls, such as dilution or local exhaust ventilation and isolation of mechanical systems.
- Install critical barriers made of polyethylene sheeting on doors, windows, vents, etc. in order to isolate the specific work area.
- To minimize dust, use wet methods when appropriate.
- Have trained employees and approved equipment on site prior to performing work.
- Conduct work activities in a safe manner.
- Use the least toxic material suitable for the application (latex paint rather than oil-based)
- Communicate with university project manager to implement effective strategies (for example, working off hours) to minimize occupant exposure.
- Relocate sources of contamination (for example, a diesel generator or tar kettle) away from the building air intake.
- Abide by all applicable laws and regulations, including those relating to acceptable noise levels.

REGULATIONS

The current regulatory permissible exposure limits (PEL's) as set by the Occupational Safety & Health Administration.

ACCOUNTABILITY

Contractors will be responsible for complying with the above guidelines and for communicating this information to their employees and subcontractors. All work shall be performed in accordance with all applicable laws and regulations.

5 LOCKOUT / TAGOUT

PURPOSE

To inform contractors of their responsibilities when performing lockout/tagout activities on University property.

ACTIVITIES

Hazardous energy must be isolated or "locked and tagged out" before servicing and/or maintenance activities are performed. The following types of hazardous energies are typically found at the University:

- Electrical
- Pneumatic
- Mechanical
- Thermal
- Hydraulic
- Chemical

RESPONSIBILITIES

The contractor is responsible for the following at the University:

- Having a lockout/tagout program prior to performing work.
- Having trained employees prior to performing work.
- Reading, understanding and complying with the University's Lockout/Tagout program. Copies of the University's program is available in the Office of Environmental Health and Safety.
- Informing the Office of Environmental Health and Safety if their program deviates from the university's program.
- Coordinating with University representatives prior to performing lockout/tagout activities.
- Providing their own lockout/tagout equipment that meet OSHA standards.
- Performing lockout/tagout activities in accordance with OSHA standards.
- Following special procedures for jobs requiring multiple lockout devices and those involving shift or personnel changes.

REGULATIONS

OSHA 29 CFR 1910.147, The Control of Hazardous Energy (lockout/tagout)

ACCOUNTABILITY

Contractors will be responsible for complying with the above guidelines and for communicating this information to their employees and subcontractors. All work shall be performed in accordance with all applicable laws and regulations.

6 FALL PROTECTION

PURPOSE

To inform contractors of their responsibilities when performing work at elevated locations on University property.

ACTIVITIES

Contractors working at unguarded locations above six feet must provide their employees with fall protection. Potential activities requiring fall protection may include working on:

- Portable and fixed ladders
- Aerial lifts
- Scaffolds
- Roofs
- Elevated work locations and platforms

RESPONSIBILITIES

Contractors have the responsibility to:

- Reduce the hazards associated with falls
- Control fall hazards first through engineering controls
- Institute personal fall arrest systems, administrative controls and training when engineering controls are not feasible
- Have a formal fall protection program in accordance with OSHA and all other applicable requirements.
- Have the necessary fall protection equipment to safely perform the job
- Have workers properly trained in the use of fall protection equipment
- Have supervisors (or competent personnel) who ensure the use of fall protection equipment as required

REGULATIONS

The contractor's fall protection program shall include, but not be limited to the regulations below:

Fall Protection	29 CFR 1926 Subpart M
Walking and Working Surfaces	29 CFR 1910 Subpart D
Powered Platforms, Manlifts, Vehicle-Mounted Platforms	29 CFR 1910 Subpart F
Scaffolds	29 CFR 1926 Subpart L

ACCOUNTABILITY

Contractors will be responsible for complying with the above guidelines and for communicating this information to their employees and subcontractors. All work shall be performed in accordance with all applicable laws and regulations.

7 HOT WORK PERMIT

PURPOSE

To inform contractors of their responsibilities when performing hot work activities at the University. The hot work permit is designed to reduce the potential of an uncontrolled ignition of materials in a hot work area.

ACTIVITIES

Hot work is any activity that creates heat, flame, sparks, or smoke. Examples of hot work include but are not limited to:

- Brazing
- Cutting
- Grinding
- Soldering
- Gas or Arc welding
- Torch-applied roofing

RESPONSIBILITIES

The contractor is responsible for the following at the University:

- Having trained employees and approved fire prevention equipment on site prior to performing work.
- Understanding and complying with the University's hot work permit program.
- Obtaining a hot work permit from Life Safety and/or Environmental Health and Safety prior to the hot work activity. To obtain a permit, the Project Manager must submit a Fixit Ticket for a permit in the AIM System.
- Acquiring a hot work permit prior to performing hot work within:
    - Occupied existing facilities
    - 40 feet of a building or potential hazard such as a fuel storage tank
    - Confined spaces regardless of location
- Coordinating with Facilities Management or Building Management the temporary shutdown of localized fire systems to prevent possible fire alarm activation and disruption of normal business operations.
- Posting the hot work permit at the job site in an accessible and conspicuous location.
- Submitting the hot work permit to the Life Safety and Environmental Health and Safety Office at the completion of the activity.
- Knowing that copies of the University's program are available at the Environmental Health and Safety Office
- Conducting their hot work activities in a sound fire safe manner and following the precautions outlined on the hot work permit.
- Assuring that a firewatcher remains on the job for 60 minutes after the completion of the hot work activity.
- Reading, understanding and complying with the University's Hot Work Permit program. Copies of the University's program is available in the Office of Environmental Health and Safety.

REGULATIONS

OSHA 1926 Subpart J, Welding and Cutting and OSHA 1910 Subpart Q, Welding, Cutting, and Brazing.

ACCOUNTABILITY

Contractors will be responsible for complying with the above guidelines. This communication will include the communication of this information to all employees and subcontractors of the contractor. All work shall be performed in accordance with all applicable laws and regulations.

8 MOLD

PURPOSE

To inform contractors of their responsibilities under the University's Mold Management Program.

MOLD

Fungi are present almost everywhere in indoor and outdoor environments. High levels of humidity in the District of Columbia, university buildings are subject to mold growth. Certain types of mold can produce toxins, which can cause allergic reactions and produce flu-like symptoms.

Mold may be found, among other places, in the following building components or furnishings:

- Drywall
- Insulation
- Carpeting
- Flooring

RESPONSIBILITIES

Before undertaking any projects of repair, renovation or construction, where mold may be present, contractors shall:

- Request from the Project Manager the location of mold in the work area.
- Stop work if mold is encountered and notify the Project Manager or Environmental Health and Safety.
- Make certain that their employees and subcontractors have had the appropriate level of mold awareness training.
- Employees are required to wear appropriate PPE. Refer to Chapter 12, below for additional information.
- Contact the Project Manager and/or Environmental Health and Safety with any questions regarding mold.

REGULATIONS

The New York City Department of Health (DOH) Guidelines have been adopted by The George Washington University to be used as a reference for its mold management program. The Institute of Inspection Cleaning and Restoration Certification (IICRC) has published the only accredited mold remediation standard. It is IICRC S520, Third Edition-2015. The university utilizes this document to guide their response and remediation efforts on property owned.

ACCOUNTABILITY

Contractors will be responsible for complying with the above guidelines and for communicating this information to their employees and subcontractors. This includes the implementation of policies and procedures including education of employees. All work shall be performed in accordance with all applicable laws and regulations.

9 SCAFFOLDING

PURPOSE

To inform contractors of their responsibilities, while performing work on University property, with use and/or erection of scaffolding (See also Chapter 6 Fall Protection, above).

RESPONSIBILITIES

The contractor shall ensure that the scaffolding be:

- Erected and dismantled by competent workers, under the supervision of knowledgeable and experienced workers.
- Erected on sound and rigid footing, capable of carrying the maximum intended load without settling or displacement.
- Securely fastened with all braces, pins, screw jacks, base plates and other fittings installed as required by the manufacturer.
- Limited to authorized personnel only, including after working hours and cordoning off the areas around scaffolding.
- Equipped with standard guardrails and toe boards on all open sides and ends of platforms more than 10 feet in height.
- Equipped with standard guardrails on all open sides and ends of platforms four (4) to ten (10) feet in height.
- Provided with a screen with maximum ½ inch openings between the toe board and the guardrail, where persons are required to work or pass under the scaffold.
- Replaced or repaired immediately if scaffolding and accessories have any defective parts.
- Provided with an access ladder or equivalent safe access.

The contractor shall ensure that the planking be:

- Scaffold grade or equivalent.
- Overlapped a minimum of 12 inches or secured from movement.
- Extended over their end supports not less than 6 inches nor more than 12 inches.

REGULATIONS

OSHA Standard 29 CFR 1926, Subpart L, Scaffolding

ACCOUNTABILITY

Contractors will be responsible for complying with the above guidelines and for communicating this information to their employees and subcontractors. This includes the implementation of policies and procedures including education of employees. All work shall be performed in accordance with all applicable laws and regulations.

10 LEAD-BASED PAINT

PURPOSE

To inform contractors of their responsibilities under the University's Lead Management Program and to provide guidelines to contractors who may potentially impact lead-based paint at GWU.

GENERAL

University buildings constructed before 1978 are assumed to contain lead-based paint unless determined otherwise by the Office of Environmental Health and Safety not to contain lead-based paint. Although lead-based paint materials may not present any health hazards while intact, any impact created by demolition or other activities related to renovations or repair projects may present significant health hazards. In the construction industry, most overexposures to lead are found in the trades, such as welding, painting, and demolition. The District of Columbia has implemented regulations regarding work involving lead-based paint.

RESPONSIBILITIES

Before undertaking any projects of repair, renovation or construction, that may impact lead-based paint, contractors shall:

- Request from the Project Manager the location of lead-containing building materials in the work area.
- Ensure all work is compliant with all applicable laws and regulations.
- In the event that lead-based paint is impacted, take all necessary precautions to protect University employees, students, workers and visitors from the exposure to lead dust or contamination. Such measures may include using plastic sheeting to isolate the work area, using wet techniques, and/or using a HEPA vacuum.
- Reading, understanding and complying with the University's Lead-Based Paint program. Copies of the University's program is available in the Office of Environmental Health and Safety.
- Contact the Project Manager and/or Environmental Health and Safety with any questions regarding lead-based paint.

REGULATIONS

29 CFR 1910.1025 (Lead in General Industry) 29 CFR 1926.62 (Lead in Construction)
29 CFR 1926.103 (General Industry Respiratory Standard)
40 CFR 745 (Lead-Based Paint Poisoning in Certain Residential Structures)
DC Act 11-438 and DC LAW 11-221 (Lead-Based Paint Abatement: Control Act of 1996)

ACCOUNTABILITY

Contractors will be responsible for complying with the above guidelines and for communicating this information to their employees and subcontractors. This includes the implementation of policies and procedures including education of employees. All work shall be performed in accordance with all applicable laws and regulations.

11 FLUORESCENT LIGHT BALLAST DISPOSAL

PURPOSE

To inform contractors of the proper method for disposal of Polychlorinated Biphenyl's (PCB's) and Non-PCB light ballasts at The George Washington University.

PCBs are regulated because they are carcinogenic and may pose a long-term hazard due to their persistence in the environment. Prior to 1978, electrical light ballasts were commonly manufactured with PCBs in the capacitor oil and in a tar-like substance that surrounds ballast components called "potting compound." Ballasts made after 1978 are usually marked "NO PCB", however they may contain a PCB replacement called DEHP, a probable human carcinogen.

REPLACEMENT PROCEDURES

The following procedures apply to light ballasts at The George Washington University:

- All light ballasts must be detached from lamp fixtures and stripped of all wiring.
- Collect and place PCB containing ballasts into a properly labeled storage container and dispose of according to applicable laws and regulations.
- All light ballasts made prior to 1978 and not marked "NO PCB" are assumed to contain PCB's, and would also need to be placed into the same properly labeled storage container and disposed of properly.
- Collect and place all "No PCB" containing ballasts into a properly labeled "Non-PCB" container and dispose of according to applicable laws and regulations.

SPILL/LEAK

- If ballasts/capacitors are leaking, contact the Office of Environmental Health and Safety.

REGULATIONS

In accordance with the federal Toxic Substances Control Act (TSCA) [40 CFR 761], the University is required to ensure the proper disposal (as hazardous waste) of light ballasts that contain polychlorinated biphenyl (PCB) oil. See https://www.epa.gov/pcbs/disposal-fluorescent-light-ballasts-flb.

ACCOUNTABILITY

Contractors will be responsible for complying with the above guidelines and for communicating this information to their employees and subcontractors. This includes the implementation of policies and procedures including education of employees. All work shall be performed in accordance with all applicable laws and regulations.

12 PERSONAL PROTECTIVE EQUIPMENT

PURPOSE

To inform contractors of their responsibilities under OSHA's Personal Protective Equipment (PPE) standard while performing work on University property.

RESPONSIBILITIES

Contractors shall:

- Provide their employees with personal protective equipment specific to the work being performed including but not limited to:
    - Eye and Face Protection. (OSHA 1910.133)
      Each affected employee shall use appropriate eye or face protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, dry ice or potentially injurious light radiation.
    - Respiratory Protection. (OSHA 1910.134)
      Each affected employee shall wear appropriate respiratory protection when exposure to harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors may be present. The contractor shall be responsible for the establishment and maintenance of a respiratory protection program, which shall include the requirements outlined in 1910.134(c). This paragraph (c) requires the employer to develop and implement a written respiratory protection program with required worksite-specific procedures and elements for required respirator use. The program must be administered by a suitably trained program administrator. In addition, certain program elements may be required for voluntary use to prevent potential hazards associated with the use of the respirator.
    - Head Protection. (OSHA 1910.135)
      Each affected employee shall wear protective helmets when working in areas where there is a potential for injury to the head from falling objects. Protective helmets shall also be worn to reduce electrical shock hazards when near expose electrical conductors which could contact the head.
    - Foot Protection. (OSHA 1910.136)
      Each affected employee shall wear protective footwear when working in areas where there is a danger of foot injuries due to falling and rolling objects, or objects piercing the sole, and where such employee's feet are exposed to electrical hazards.
    - Hand Protection. (OSHA 1910.138)
      Each affected employee shall wear protective gloves when working in areas where hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns; thermal burns; and harmful temperature extremes.
    - Hearing Protection. (OSHA 1910.95)
    - Each affected employee shall wear appropriate hearing protection when sound levels exceed the permissible noise exposure outlined in this standard.
    - Provide training to each employee who is required to use PPE.
      Each affected employee must show understanding of training to their specific PPE. Contractors shall provide this training and upon completion, each employee shall be tested, and certified in writing by the trainer. If at any time the trained employee changes work activities requiring

different PPE, or exhibits lack of understanding of the required PPE, the employee shall be retrained and re-certified.

REGULATIONS

OSHA 29 CFR 1910 Subpart I, Personal Protective Equipment

ACCOUNTABILITY

The contractor shall comply with all federal, state, and local laws and regulations pertaining to employee health and safety at University job-sites. This includes ensuring that subcontractors follow safe work practices.

13 HAZARD COMMUNICATION

PURPOSE

To inform contractors of potentially hazardous materials present at University job-sites and to inform them of their responsibilities under the hazard communication policy.

NOTIFICATION

The University is responsible for disclosing known site-specific hazards to the contractor. Site-specific hazards may include the presence of chemical, radiological or biological materials. Disclosure of any site-specific hazards should occur prior to the solicitation process so any precautions to address the identified hazards can be considered.

RESPONSIBILITIES

Contractor shall:

- Maintain and have accessible copies of Safety Data Sheets (SDS) for hazardous chemicals brought onto University property.
- Before use, forward all SDS sheets of hazardous materials to the Office of Environmental Health and Safety for review.
- Maintain an effective hazard communication program.
- Use and store all hazardous or flammable chemicals, liquids, or gases brought onto the project site in approved containers conforming to applicable federal, state and local codes. Refer to the University's Chemical Hygiene Plan for guidance. Copies of the University's program are available in the Office of Environmental Health and Safety.
- Secure permits, if applicable, for the temporary storage of hazardous materials on the project site.
- Ensure that spills of hazardous materials are contained and cleaned-up immediately and that all necessary means and materials are maintained at the work site to accomplish this task.
- Notify the Project Manager immediately of a hazardous material spill and provide a timely report and corrective action taken to mitigate the issue to the Office of Environmental Health and Safety.
- In the event the contractor encounters a hazardous material (e.g., asbestos, lead, PCB), on the project site, report the condition to the project manager.

ACCESS TO Safety Data Sheets

GWU will provide SDS copies of all hazardous chemicals on site. SDS information is available from two sources on campus.

- Office of Environmental Health and Safety
- Project Manager

REGULATIONS

OSHA 29 CFR 1910.1200, Hazard Communication

ACCOUNTABILITY

The contractor shall comply with all federal and local laws and regulations pertaining to employee health and safety at University job-sites. This includes ensuring that subcontractors follow safe work practices.

14 TRENCHING & EXCAVATIONS

PURPOSE

To inform contractors of their responsibilities while performing trenching and excavation operations on University property. Excavations include, but are not limited to, operations such as drilling, digging and trenching.

RESPONSIBILITIES

Contractors shall apply the following safety controls:

- Before any excavation work begins, underground utilities shall be identified and the location marked of underground pipes, electrical conductors, gas lines or other structures. Contact Miss Utility (1-800-257-7777) for procedures and notification requirements.
- Evaluation is required of the trenching site by a "competent person" who knows and is trained to identify soil types, proper protective systems and hazardous conditions.
- Conduct a daily inspection of the excavation and the adjacent areas prior to work and as needed during the workday. If there are any unsafe conditions, work shall stop in the excavation and personnel removed until the problems are corrected.
- Monitor and recognize hazardous atmospheres and conditions such as vibration, external loads, weather conditions, ground water conditions and confined spaces.
- Check all protective material or equipment for any damage.
- When excavations are deeper than 4 four feet, ladders or steps shall be located so that a worker does not need to travel more than 25 feet in the excavation before being able to exit. See (OSHA) confined space standard 29 CFR- 1910.148 for testing before employees enter excavations greater than 4 feet in depth.
- Each employee in an excavation shall be protected from cave-ins by an adequate protective system designed in accordance with OSHA Standard 1926, Subpart P.
- Examination of the ground by a competent person for excavations less than five (5) feet in depth must present no indication of a potential cave-in hazard. If a cave-in hazard exists, protective systems are required.
- When excavations are deeper than five (5) feet, the sides shall be provided with a protective system (shored, braced or sloped sufficiently) to protect against hazardous ground movement.
- When heavy equipment will be operated nearby, the shoring or bracing shall be able to withstand this extra load regardless of the depth of the excavation. For any excavation that a person will enter, all dirt, debris and excavation material shall be effectively stored or retained at least two (2) feet from the edge of the excavation.
- Adequate protection from hazards associated with water accumulation should be in place before working in excavations.
- Signs and Barricades shall be displayed at all excavation/trenching sites.
- All excavations into which a person could fall or trip shall be guarded. While work is being performed in or near the opening, the guards surrounding the area shall be maintained.
- Barricades at least 3 to 5 feet high shall be spaced no further than ten (10) feet apart and yellow and black "Caution, Do Not Enter" construction tape shall be stretched securely between the barricades.
- A registered professional engineer shall design excavations more than twenty feet deep.
- Excavations should be covered and not left open overnight, whenever possible.

REGULATIONS

OSHA Standard 29 CFR 1926, Subpart P, Trenching and Excavations and 29 CFR 1926.650-652

ACCOUNTABILITY

Contractors will be responsible for complying with the above guidelines and for communicating this information to their employees and subcontractors. All work shall be performed in accordance with all applicable laws and regulations.

15 MERCURY-CONTAINING LAMPS

PURPOSE

To inform contractors of their responsibilities when removing or replacing mercury-containing lamps on University property.

GENERAL

Much of the indoor and outdoor lighting at The George Washington University comes from fluorescent and high-intensity- discharge lamps, also known as mercury-containing lamps. Mercury-containing lamps will include all fluorescent and high- intensity discharge lights, bulbs, tubes, and lamps. Mercury-containing tubes will not be transported from one campus to the other. Each campus has at least one designated storage site.

PERSONAL PROTECTIVE EQUIPMENT

The contractor shall provide their employees with personal protective equipment in accordance with all federal, state and local safety and health regulations. See also Section 12 of this Manual.

RESPONSIBILITIES

The contract Supervisor (or designated representative) will contact Facilities Maintenance at 202-994-6706 and request for lamp removal. FM will take the tubes to GW's Universal Waste Storage Area in Duques Hall.

Lamps should not remain on project sites for greater than one day. If lamps remain on project site for greater than one day, the site must be managed in accordance to the District of Columbia hazardous waste regulations. In the event of broken lamps manage in accordance with DC's hazardous waste regulations.

REGULATIONS

20 DCMR Part 48 (incorporated by reference 40 CFR Part 273), Standards for Universal Waste Management
20 DCMR Parts 40 through 54 (incorporated by reference 40 CFR Parts 262 – 264, 266), Solid Wastes.

A. 29 CFR 1910.133, Eye and Face Protection.
B. 29 CFR 1910.138, Hand Protection.

ACCOUNTABILITY

Contractors will be responsible for complying with the above guidelines and for communicating this information to their employees and subcontractors. All work shall be performed in accordance with all applicable laws and regulations.