

Division of Administrative Services

ENVIRONMENTAL HEALTH AND SAFETY

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

July 2017

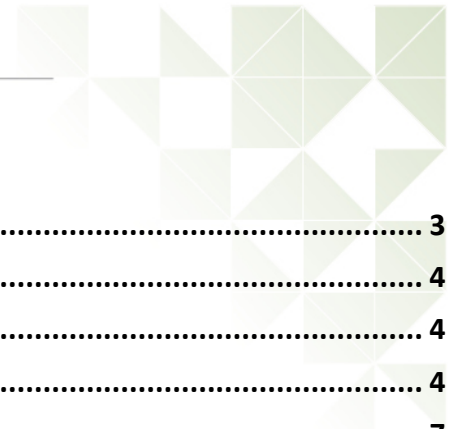
 VirginiaTech



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ENVIRONMENTAL HEALTH AND SAFETY

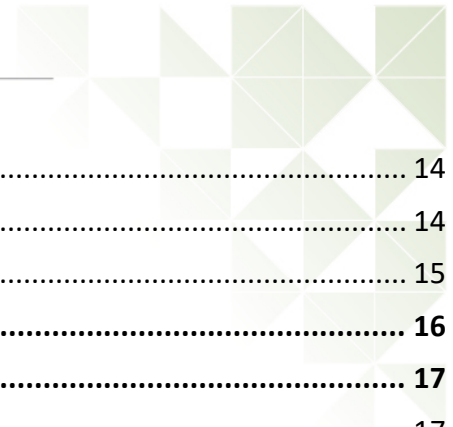




Contents

Revision Status	3
Purpose	4
Scope	4
Responsibilities	4
General Information	7
Accidental Spills and Releases	7
Emergency Notification System	7
First Aid Services	7
Means of Egress	7
Fire Protection and Suppression Systems	7
Building Alarms	7
Compressed Gases	8
Temporary Structures	8
Temporary Traffic Control	8
University Equipment	8
Program-Specific Requirements	9
Asbestos and Suspect Asbestos Containing Materials	9
Biological Safety Hazards	9
Chemical Hazards	10
Confined Spaces	10
Control of Fugitive Emissions	11
Electrical Safety	11
Explosives	11
Fall Protection Systems	11
Hazardous Waste	12
Hot Work	13
Lead-Containing Building Materials	13
Lockout/Tagout	13
Mobile Cranes	14
Roof Access	14





Scaffolding..... 14

Silica (Respirable Crystalline) 14

Trenching and Excavations 15

Agencies/Firms with No Contractual Relationship with Virginia Tech 16

Work Site Inspections 17

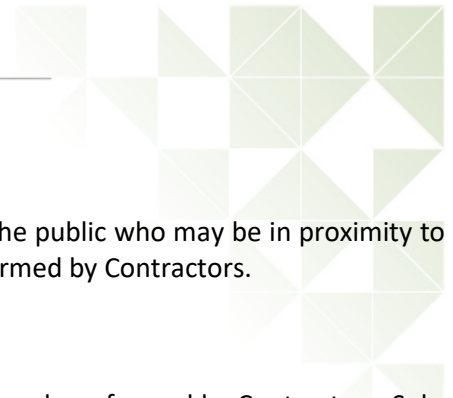
 Non-Capital Projects 17

 Capital Projects 17

Definitions..... 18

Revision Status

Contacts	Implementation Date	Revision Number	Comments
EHS	October 1995	N/A	Original program issued.
Z. Adams, PE, CSP R. Robinson	September 2000	2.0	Major revision to reformat sections and clarify requirements.
Z. Adams, PE, CSP R. Robinson	April 2002	3.0	Major revision to separate capital from non-capital construction.
Z. Adams, PE, CSP R. Robinson	November 2002	3.1	Revision of requirements related to capital projects.
Z. Adams, PE, CSP R. Robinson	June 2004	4.0	Major revision to expand expectations for the performance of specific work by contractors.
Z. Adams, PE, CSP	April 2009	4.1	Minor revision to define rescue squad response on campus, interaction of university and contractor employees.
R. McCall-Miller, CSP	June 2009	4.2	Minor revision to include contractor response to fire alarms in existing buildings and update phone numbers.
R. McCall-Miller, CSP	March 2010	5.0	Major revision to expand expectations for the performance of specific work by contractors and revise current practices.
R. McCall-Miller, CSP	July 2013	5.1	Add boiler/pressure vessel inspections, confined space visitors MSR, and minor clarifications.
R. McCall-Miller, CSP	July 2017	6.0	Major revision to format, update electrical, LOTO, emergency numbers, add silica and temporary traffic control requirements, remove storm water management.



Purpose

The purpose of this document is to assure the safety of university employees and the public who may be in proximity to renovation, construction, demolition, installation, or maintenance operations performed by Contractors.

Scope

This program applies to all Virginia Tech properties in the United States, and to all work performed by Contractors, Sub-contractors, Architect/Engineering firms, and Virginia Tech employees in or on property owned, leased, or occupied by Virginia Tech. For agencies and firms with no contractual relationship with Virginia Tech, such as media crews or regulatory agencies, see requirements specified in “Agencies/Firms with No Contractual Relationship with Virginia Tech” of this program.

Virginia Tech personnel on construction sites are not considered “contractors”, “subcontractors”, “visitors”, nor “vendors” to the General Contractor. Virginia Tech personnel shall be trained by Virginia Tech EHS on relative hazards and controls, and will follow university health and safety programs and policies.

Responsibilities

Departments

Each department that coordinates or uses the services of a Contractor to perform maintenance, repair, installation, renovation, or construction-related operations is expected to designate one or more persons to coordinate this program within its department.

Designated Departmental Coordinators/Project Managers

Project Coordinators/Managers are expected to assure that the Contractor is:

- Provided access to this document upon request during the pre-bid/pre-proposal conferences for the work. This document shall be either included with, or referenced in, the contract documents.
- Provided an opportunity to attend an initial safety orientation during the pre-construction conference, or as arranged with EHS, prior to the start of the work.
- Informed of the presence of hazards in or near the work area.
- Informed about Virginia Tech’s requirements related to various safety and health programs.
- Aware of the university’s expectations regarding safety compliance and the control of worksite hazards.

Supervisors/Employees

Virginia Tech personnel shall inform the General Contractor when on site, and observe posted personal protective equipment requirements established by the General Contractor.

Contractors

The Contractor shall:

- Bear sole responsibility for the safety of its employees.

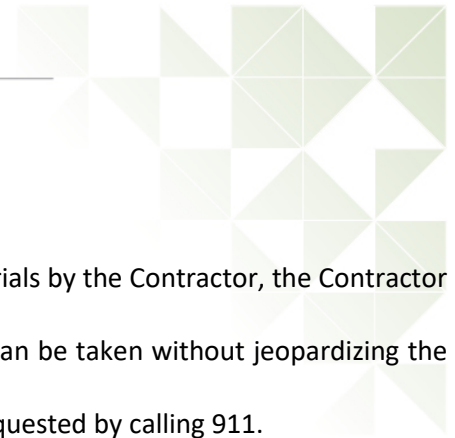
- Take all steps necessary to protect the safety and health of university employees, students, and visitors during the performance of their work by establishing, administering, and enforcing safety rules that meet the regulatory requirements of the Virginia Department of Labor and Industry (VDLI) and the Occupational Safety and Health Administration (OSHA). These regulations include, but are not limited to:
 - Title 29 of the Code of Federal Regulations (CFR), Part 1910, Occupational Safety and Health Standards for General Industry,
 - Title 29 of the Code of Federal Regulations (CFR), Part 1926, , Occupational Safety and Health Standard for Construction,
 - Virginia Statewide Fire Prevention Code, as currently adopted by the Commonwealth of Virginia, and
 - Virginia Uniform Building Code, as currently adopted in the Commonwealth of Virginia.
- Abide by the requirements of any sign posted in a building that requires the use of specific personal protective equipment, that restricts access to qualified or authorized persons only, or that establishes other requirements for entry.
- Establish controls to restrict unauthorized access to the work zone, and ensure that requirements for entry are clearly posted at all access points. Signs should clearly indicate required personal protective equipment that must be worn in the work zone area.
- Ensure submittals, where required from the Contractor by this document, be made in writing directly to the university Project Manager and are available to EHS upon request. Submittals shall be made sufficiently in advance to avoid delay of the project. Where review, approval, or coordination of submittals is required, submittals shall be made at least ten working days prior to the start of the project unless prior arrangements have been made. Post-job submittals shall be made no later than fifteen working days after completion of the project, or as specified herein.
- Communicate any safety-related information and requirements to Subcontractors, and assure that they abide by the requirements outlined herein.
- Attend an initial safety orientation with EHS prior to the award of the first project under a term contract, or attend pre-construction conferences to discuss pertinent safety issues.
- Make all arrangements necessary to assure adequately trained personnel in first aid/CPR response are available on the jobsite as required by OSHA/VOSH.
- Inform the Project Coordinator/Manager near completion of installation of any new boiler and pressure vessel that may require third-party inspection. Third-party inspections are coordinated through the Office of Risk Management.

Environmental Health and Safety

Environmental Health and Safety's (EHS) mission is to work toward providing a safe and healthful living, learning,

and working environment for every member of the greater university community by assuring safe work practices through educating, training, and assisting individuals and departments. EHS supports Contractors by:

- Helping individuals and departments achieve compliance with all health and safety state and federal regulations and university policies as economically as possible,
- Acting as liaison with external regulatory agencies, and
- Monitoring university compliance with mandatory health and safety standards where necessary.



General Information

Accidental Spills and Releases

In the event of an accidental release or spill of chemicals, or other hazardous materials by the Contractor, the Contractor shall:

- Immediately take action as appropriate to contain the spill (if this action can be taken without jeopardizing the health or safety of employees,
- Notify the rescue squad, fire department, or other entities as needed or requested by calling 911.
- Contact EHS at 231-3600 (or via calling 911 after hours),
- Contact the university Project Manager.

All university costs associated with responding to, or remediation of, a chemical or hazardous material spill or release may be assessed to the Contractor.

Emergency Notification System

VT Alerts if Virginia Tech's emergency notification system. In the event of a campus emergency, Virginia Tech will use several information delivery methods to reach personnel. To sign up for VT Alerts, go to the Office of Emergency Management's website at www.emergency.vt.edu.

First Aid Services

The Virginia Tech Rescue Squad will provide emergency medical response to construction projects; however, the Rescue Squad cannot guarantee a minimum response time as required by OSHA, and may not be named in lieu of the Contractor providing adequately trained personnel on site.

Means of Egress

The Contractor shall not conduct work or operations that obstruct exits or the means of egress from an occupied building without the prior approval of EHS and the university Project Manager. Equipment and materials are not to be stored in exits or exit stairwells at any time, and may not be stored in the means of egress without prior approval. Fire-rated doors shall not be chocked or blocked open, except temporarily and while constantly supervised; such chocks/blocks must be immediately removed in the event of a building fire alarm or similar emergency. Contact EHS at 231-4207 for more information.

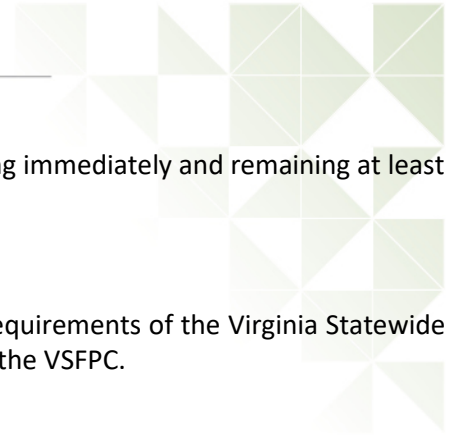
Fire Protection and Suppression Systems

The Contractor shall not conduct any work that disables or alters the functionality or technical specifications of fire protection and suppression systems without prior approval of the university Project Manager. EHS must be notified and will secure any external approvals, as required. These systems include, but are not limited to, fire rated assemblies and enclosures, smoke barriers and partitions, fire alarm panels, exit signs and emergency lighting, sprinkler, and other suppression systems, heat and smoke detection, fire hydrants, fire department access, and fire pumps. Contact EHS at 231-4207 for more information.

Building Alarms

In the event of a fire, sound the alarm and/or notify other building occupants immediately. Call 911 and report as much information as possible to the dispatcher.





Contractor personnel shall respond appropriately to all alarms by exiting the building immediately and remaining at least 50 feet from the building to allow for emergency response access.

Compressed Gases

Compressed gases shall be stored, used, and transported in accordance with the requirements of the Virginia Statewide Fire Prevention Code (VSFPC). New compressed gas installations shall comply with the VSFPC.

Temporary Structures

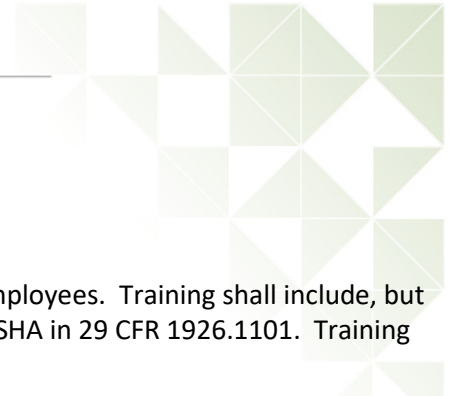
All tents, stages, and temporary structures shall comply with the requirements of university policy 5406.

Temporary Traffic Control

Work that falls under the Virginia Work Area Protection Manual (VWAPM), such road/lane/sidewalk closures, minor road encroachments, or bicycle paths, must implement temporary traffic control measures in accordance with the VWAPM to properly regulate, warn, and guide vehicular, non-motorized, and pedestrian traffic on campus. Flagging operations must comply with VWAPM.

University Equipment

University equipment (ex. forklifts, aerial lifts, ladders, etc.) should not be loaned to Contractors for liability and/or specialized training purposes. Contractors should provide the necessary equipment to perform they job.



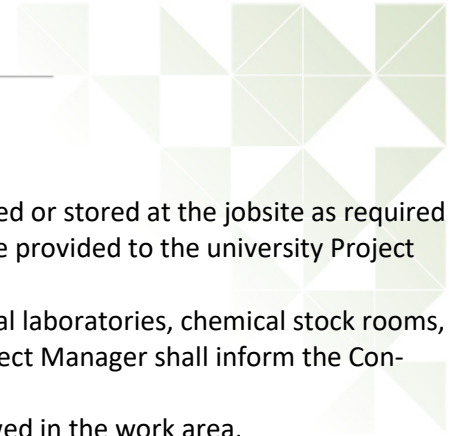
Program-Specific Requirements

Asbestos and Suspect Asbestos Containing Materials

- Contractors are responsible for providing awareness level training for their employees. Training shall include, but is not limited to, information contained in this section and that specified by OSHA in 29 CFR 1926.1101. Training records must be available upon request to the university.
- Contractors employed by the university to perform building or facilities-related maintenance, repair, or renovation shall be informed by the university Project Manager of the location of known or suspect asbestos-containing materials (ACM) in the work area(s) to which they are assigned. Designated Departmental Safety Coordinators shall supply this information to the Project Manager by means of:
 - A copy of a completed *Asbestos and Lead Survey Report* specific to the scope of work and materials that are to be disturbed, or
 - Construction documents that clearly detail ACM locations within the work area.
- Contractors shall under no circumstances damage or disturb suspect or know friable ACM unless they are a licensed Virginia Asbestos Abatement Contractor and have been specifically employed to perform asbestos repair or removal for the university.
- If suspect ACM is discovered during the course of the work, the Contractor shall stop work immediately and notify the university Project Manager (or as indicated in contract documents).
- The Contractor shall not proceed with any change in work, which requires a material to be disturbed, that the *Asbestos and Lead Survey Report*, or construction documents, show has not previously been tested or disclosed. If a change in the scope of work becomes necessary, the revised scope of work shall be reviewed, and the *Asbestos and Lead Survey Report* or construction documents revised to reflect any changes.
- Asbestos materials shall not be used or installed in university facilities.

Biological Safety Hazards

- The university Project Manager shall coordinate with the departmental Principle Investigator and Lab Manager to ensure that no active manipulation of biohazardous materials will occur during the course of Contractor access.
- If work will be conducted on the roof systems of a building where biological research occurs, the university Project Manager shall coordinate access with Facilities, the departments, and/or Facility Managers within the building, and EHS as necessary to ensure that:
 - No experiments are in progress that would generate toxic or infectious airborne contaminants, and that all biohazardous materials are contained while the Contractor will be performing work on these systems,
 - Contractor is informed of any special precautions that must be taken to prevent employee exposure to biohazards,
 - Contractor is informed of emergency procedures that the Contractor is to follow in the event of accidental exposures during the course of the work, and
 - Contractor is provided a copy of Virginia Tech's Roof Access Procedure upon request, which outlines the precautions that should be taken to protect its employees while conducting such work. This information may be obtained by contacting EHS at 231-3427, or at www.ehss.vt.edu/programs/ROOF_access1.php.

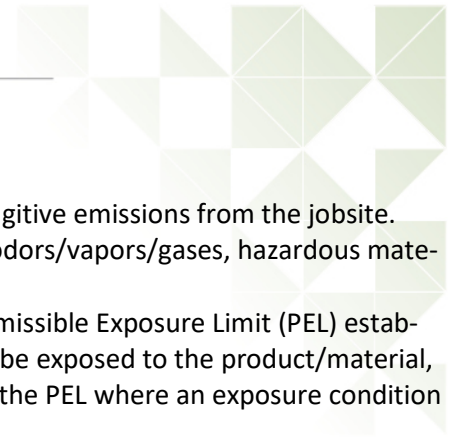


Chemical Hazards

- Contractor shall maintain Safety Data Sheets (SDS) on site for all chemicals used or stored at the jobsite as required by VDLI/OSHA regulations and the contract documents. Copies of SDS shall be provided to the university Project Manager and EHS upon request.
- When work will be performed in areas with chemical hazards, such as chemical laboratories, chemical stock rooms, chemical waste accumulation areas, custodial closets, etc., the university Project Manager shall inform the Contractor of the following:
 - Known hazards and any required safety procedures that must be followed in the work area,
 - Methods for obtaining access to SDSs for hazardous chemicals present in the work area,
 - Information regarding any labeling system used in the work area,
 - Emergency procedures that the Contractor is to follow in the event of accidental exposures or releases of hazardous chemicals.
- Where the Contractor has taken air samples documenting employee exposure to airborne chemical or particulate hazards during the course of work, a copy of results must be provided to EHS within 24 hours of receipt.
- Access to building roofs with fume hood exhausts must be in accordance with EHS's Roof Access Procedure. This information is available from EHS at 231-3427 or www.ehss.vt.edu/programs/ROOF_access1.php.

Confined Spaces

- Where confined spaces must be entered prior to having a formal agreement with the university, a *Visitor Confirmation of Confined Space Program Compliance* form must be completed by the entrant and submitted to the Project Manger prior to entering.
- Contractors shall be informed by the Project Manager that work will occur in a confined space, and that entry is allowed only through compliance with a Confined Space Program meeting the requirements in 29 CFR 1926.Subpart AA or 29 CFR 1910.146, as applicable for the scope of work.
 - A copy of the Contractor's Confined Space Program must be provided to the university Project Manager and EHS upon request.
 - Copies of cancelled entry permits shall be provided to the university Project Manager and EHS upon request.
 - Where rescue services are required, the Contractor shall inform the university Project Manager in writing whom they will be using during entry.
- Contractors shall be informed of the elements involved with the confined space, any hazards identified by the department, and the university's experience with the space prior to entry. Any precautions or procedures that the university has implemented for the protection of its personnel shall also be conveyed to the Contractor.
- Contractors shall provide at least 24-hour advance notice to the university Project Manager when Contractor personnel will be working in a confined space on campus.
- Where Contractor and university personnel will be working in or near the same confined space, EHS must be notified at 231-2341 and entry precautions and procedures shall be coordinated.
 - Each group shall independently assess, test, and issue permits for entry. Neither entity shall rely upon the other to perform required assessment or testing.
- Any hazards confronted or created in the confined space during entry shall be communicated to EHS, the department, and the university Project Manager.
- Virginia Tech's Confined Space Entry Program is available upon request at 231-2341 or www.ehss.vt.edu/programs/confined_spaces.php.



Control of Fugitive Emissions

- The Contractor shall take all reasonable precautions necessary to control fugitive emissions from the jobsite. Fugitive emissions include, but are not limited to, nuisance dust, chemical odors/vapors/gases, hazardous materials (such as asbestos fibers or lead dust), and excessive noise.
- Where the product(s) or material(s) to be used by the Contractor has a Permissible Exposure Limit (PEL) established by OSHA or VDLI, and where university employees or the public may be exposed to the product/material, the Contractor shall take all reasonable steps to maintain exposures below the PEL where an exposure condition during use exceeding the PEL could reasonable be anticipated.
- Where it is anticipated that the PEL could be exceeded, or when building occupants report objectionable concentrations of an air contaminant, or possible health effects from said exposure, the Contractor shall monitor, or shall contract to have monitored, these work areas and/or building exposure conditions.
 - Monitoring shall occur, at a minimum, during the start of work and whenever there is a change in procedure, process, or chemical/material used, and in response to the building occupant concerns where applicable.
 - If feasible control measures are not practical to maintain exposures below the PEL, the Contractor shall restrict access to all areas where exposures exceed the PEL to authorized personnel only.
 - Copies of this air monitoring data shall be provided to the university Project Manager or their designated representative upon request.

Electrical Safety

- Project Managers shall coordinate access to electrical systems, work scheduling, pre-planning for power outages in a building, and coordination of safety requirements between Contractors/Subcontractors and university personnel, where appropriate.
- Contractors shall coordinate requests for shutdowns and/or power outages with the university Project Manager, the department affected, and Facilities, as appropriate.
 - At least a two-week notice shall be provided for shutdowns/outages affecting a building or department so that temporary power, work scheduling, or other necessary arrangements can be made to minimize the interruption of departmental activities and ensure the safety of personnel performing the electrical work.
- Contractors shall establish a “Limited Approach Boundary” to protect unqualified or unauthorized personnel when energized electrical equipment or components greater than 50 volts will be exposed in occupied buildings.

Explosives

The storage and use of explosives, blasting agents, and pyrotechnic devices is strictly regulated, and shall comply with all state and federal laws. A fee, blasters certification, and background check may be required to obtain a permit. Contact the Virginia State Fire Marshal’s Office at 276-646-0266 for more information.

Fall Protection Systems

- The university Project Manager shall inform the Contractor of any fall protection system(s) installed in the work area, or of the absence of such systems, so that temporary controls may be considered by the Contractor.
- Anchor points installed on university properties may only be used for the purpose and manner for which they were designed (i.e. personal fall arrest or restraint).
- Where Contractors will be using available mobile anchor points on Virginia Tech building roofs, the university will provide manufacturer-specific information to the Contractor prior to use.
- The Contractor is responsible for providing employee protection in accordance with 29 CFR 1926.502 on unguarded roofs, open-sided floors, loading areas, etc.

Hazardous Waste

- Contractors shall assure that all hazardous chemicals or materials are handled and disposed of in accordance with federal and state regulations, including EPA regulations codified in 40 CFR. For assistance, contact EHS at 231-2982, 231-2510, 231-6321, or 231-3220.
 - Contractors shall not ship any “hazardous” or “universal” wastes without EHS notification and approval. Proper paperwork with correct EPA identification number, addresses, and emergency contact information must be submitted.
 - Where a hazardous waste disposal manifest is required by regulation, the Contractor shall contact the EHS Hazardous Material Program Manager at 231-2982 to assure that manifesting, storage, and the proposed disposal method and site meet university requirements.
 - Bills of Lading, manifests, and LDRs must be signed by the EHS Hazardous Material Program Manager, or designated representative, for all shipments of “hazardous” or “universal” waste, **excluding asbestos**. Refer to construction specifications for asbestos abatement for relative information.
- Hazardous waste includes such items as:
 - Bulbs: The following procedure is to be used for 4- and 8-foot fluorescent bulbs, High Density Discharge Bulbs (mercury bulbs), and U-Tubes:
 - Bulbs should be placed in manufactured boxes.
 - When the first bulb is put in the box, a Universal Waste Label shall be placed on the outside of the box. Fill in contents and date.
 - When not actively putting bulbs in the box, the lid shall be closed and sealed.
 - Keep boxes inside, in a dry location, away from water.
 - EHS will not approve the use of a fluorescent bulb crusher.
 - Mercury-Contaminated Materials: All mercury-contaminated materials must be treated as “hazardous” waste and disposed of according to state and federal regulations. All sink traps located within research buildings are suspected to potentially be contaminated with some mercury. Anyone working on sink traps/drains on campus should wear appropriate personal protective equipment, such as eye protection, face shield for splash protection, gloves, and disposable coveralls, as applicable. Contact EHS if these items are discovered.
 - Ballasts: PCB and non-PCB ballasts shall be placed into UN-approved 55-gallon drums for disposal and shipped on a hazardous waste manifest. The lid on the drum shall be secured unless actively adding to the drum. There is a one-year time limit to dispose of the drum, beginning when the first ballast went into it.
 - Ballasts are considered to be PCB ballasts if the label says it is, or the label does not say “No PCBs”.
 - Non-PCB ballasts will have “no PCBs” written on the ballast. These should be placed in a separate drum (UN-approved) for recycling.
 - Broken Fluorescent/HIDs/U- Tubes that are unintentionally broken shall be placed into a UN-approved poly drum. These may be considered “hazardous” waste and should be treated as such due to the possible re-release of mercury vapors.
 - When not actively adding to the drum, the lid shall be on and secure.
 - The drum must be labeled “Broken Fluorescent Bulbs” and indicate the date the first bulb was placed in the drum.
 - There is a one-year time limit to dispose of the drum, beginning when the first ballast went into it.
 - Lead Paint: Waste from scraping, grinding, or peeling is considered “hazardous” waste and shall be stored in a UN-approved drum with the lid securely fastened. This drum must be labeled as “Lead Paint Chips”, and locked in an area away from public access.
 - Core samples from suspected lead-based paint containing materials, such as walls, doors, and door

casings, shall be taken prior to demolitions and sent for TCLP analysis. An EHS representative shall be present for any sampling activities.

- All sampling results shall be copied to EHS for proper waste disposal determination.
- Miscellaneous Chemicals: Any chemical found during demolition shall be handled as “hazardous” waste. Examples include cylinders, bottles, cans with liquid, spill cleanup, etc.

Hot Work

Contractors performing hot work (i.e. use of open flames, welding, cutting, brazing, soldering, grinding, compressed gases, supplied fuel burning, thawing pipe, or torch-applied roofing) shall maintain a Hot Work Permit program that meets 29 CFR 1926.352, ANCI Z49.1-88, and NFPA 51B.

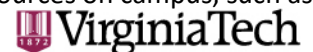
- A copy of the cancelled permit(s) shall be provided to the university Project Manager and EHS, upon request.

Lead-Containing Building Materials

- Contractors employed by the university to perform building or facilities-related maintenance, repair, or renovation shall be informed by the university Project Manager of the location of lead-containing building materials in the work area(s) to which they are assigned. Designated Departmental Safety Coordinators shall supply this information to the Project Manager by means of:
 - A copy of a completed *Asbestos and Lead Survey Report* specific to the scope of work and materials that are to be disturbed, or
 - Construction documents that clearly detail the location of lead-containing building materials within the work area.
- Contractors who will disturb lead-containing building materials during the course of work shall take all necessary precautions to protect university employees and the public from exposure to lead dust or contamination. These measures shall conform, at a minimum, to OSHA requirements detailed in 29 CFR 1926.62 and applicable local, state, and federal regulations related to health, safety, transportation, and disposal of such materials.
- Contractors shall submit a copy of their lead compliance program for review and approval by either the Departmental Safety Representatives or EHS upon request. This submittal shall be made sufficiently in advance of construction to avoid delay of the project.
- Where work will occur in child-occupied facilities (as defined by 40 CFR Part 745), such work shall be performed in accordance with 40 CFR Part 745, and clearance testing shall be performed by the Departmental Safety Representative, EHS, or a licensed consultant at the conclusion of the project.
- A copy of the analytical report(s) for any personal air sampling taken during the course of the work must be provided to EHS.
- The Contractor shall not proceed with any change in work, which requires a material to be disturbed, that the *Asbestos and Lead Survey Report*, or construction documents, show has not previously been tested or disclosed. If a change in the scope of work becomes necessary, the revised scope of work shall be reviewed and the *Asbestos and Lead Survey Report* or construction documents revised to reflect any changes.
- On projects where lead-containing materials will be disturbed or removed, the waste stream shall be TCLP-tested, and the university Project Manager shall contact the EHS Hazardous Waste Coordinator at 231-2982 to determine disposal requirements during the design phase of the project with EHS.

Lockout/Tagout

- Contractors shall comply with 29 CFR 1910.147 when de-energizing hazardous energy sources on campus, such as



electrical, mechanical, hydraulic, pneumatic, chemical, steam, gravity, etc.

- A copy of their Lockout/Tagout Program shall be provided to the Project Manager and/or EHS upon request.
 - A copy of Virginia Tech's program is available at www.ehss.vt.edu/programs/lockout.php.
 - Locks and tags must be used when de-energizing hazardous energy sources on campus.
- The Project Manager, in cooperation with the responsible department, shall inform the Contractor of available Energy Control Procedures that must be followed for campus equipment. Any questions or concerns regarding the procedure should be communicated to the Project Manager and EHS for resolution.

Mobile Cranes

- The Virginia Tech/Montgomery Executive Airport shall be notified as soon as possible when work activities will involve the use of a mobile crane on campus. A *Notice of Proposed Construction or Alteration* may be required to be submitted to the Federal Aviation Administration (FAA), which can take up to 45 days for approval. Forms are available at www.faa.gov.
- Contractors shall provide copies of their annual and monthly crane inspections to EHS upon request.
- Contractors shall ensure that the crane, swing radius, and load path is properly barricaded to prevent personnel from being struck or crushed by the crane or the load.
- Where loads will be raised over occupied buildings and the weight of the load could pierce the building envelop if it were dropped, the Project Manager shall coordinate temporary removal of personnel directly beneath the load during lifting operations.

Roof Access

- If work will be conducted on the roof of a building, the university Project Manager shall coordinate access with Facilities, the departments the building (when appropriate), and EHS as necessary.
- Roof access shall be in accordance with EHS' Roof Access Procedure(s) at www.ehss.vt.edu/programs/ROOF_access1.php regarding potential exposure to chemical fume hood systems and exhausts, biological fume hood exhausts, severe noise hazards, radio frequency towers, and fall hazards may be present.
 - Building-specific information is available at www.ehss.vt.edu/programs/ROOF_access1.php.
- Fume hoods within, or adjacent to, the work area may be shut down, if necessary.

Scaffolding

- Scaffolding shall comply with 29 CFR 1926.Subpart L and manufacturer's instructions.
- University personnel who must access Contractor scaffolding for purposes of inspection or related work activities shall complete EHS Scaffold Awareness level training prior to access.
- Contractors shall make routine and periodic inspection data available to university personnel upon request.

Silica (Respirable Crystalline)

- Contractors shall take all necessary steps to comply with the exposure limits for silica established in 29 CFR 1926.1153. A written Exposure Control Plan must detail how potential exposure to Virginia Tech personnel and the general public in adjacent areas will be kept below allowable limits. A copy of this plan shall be provided to EHS and/or the university Project Manager upon request.
- Where tasks are performed indoors or in an enclosed area, exhaust shall be provided as needed to minimize the accumulation of visible airborne dust. If the exhaust is vented where building occupants or the general public may be exposed, the system must incorporate HEPA-filtration.
- If the building ventilation system provides air to an area where "restricted work" is being performed, the air returns shall be blanked or closed while such work is in progress.

- A “temporary restricted area” must be established where tasks performed in accordance with Table 1 of 29 CFR 1926.1153 require that respiratory protection be used, or where tasks are performed that are not listed in Table 1, and where no historic or objective data exists to prove exposures will be below the action level.
 - Temporary Restricted Areas must be designated with signs, barriers, or other effective means that will assure unauthorized persons do not enter.
 - If such work is performed in occupied buildings, dust barriers shall be installed as necessary to isolate the restricted area.

Trenching and Excavations

- Contractors shall follow 29 CFR 1926.650 for trenching and excavation work conducted on campus.
 - The Contractor shall ensure that a “competent person” will be onsite to oversee such activities.
 - Inspections shall be conducted by the “competent person” and made available upon request to university personnel who may need to enter to perform inspections or other activities.
 - University personnel who must enter excavations/trenches should coordinate a pre-inspection by a university “competent person” prior to entry.
 - Contractors shall be notified prior to university personnel entering excavations/trenches on projects.
 - Where the design of protective systems requires review and approval by a registered professional engineer, the Contractor shall provide a copy of the documentation to the Project Manager and/or EHS upon request.
- Contractors are responsible for contacting Miss Utility prior to digging/excavating.
- Where heavy equipment will be in the vicinity of overhead power lines, the Project Manager shall notify VT Electric Services and coordinate any special precautions that must be implemented.

Agencies/Firms with No Contractual Relationship with Virginia Tech

All agencies/firms conducting work on Virginia Tech property shall comply with the requirements of VDLI, OSHA, and this program even where no formal contractual relationship exists between Virginia Tech and the agency/firm. The agency/firm shall maintain appropriate insurance, including general liability, auto liability, and workers compensation insurance. Verification of insurance shall be coordinated with the Virginia Tech Director of Risk Management at 540-231-7439 prior to the start of work.

Such agencies/firms shall not perform work on Virginia Tech property, without prior written approval of EHS that involves or includes:

- Use of a product(s) or material(s) that has a Permissible Exposure Limit (PEL established by OSHA),
- Damaging or disturbing known or suspect asbestos materials or suspect lead-containing materials,
- Entry into a confined space,
- Work on any electrical system or utility,
- Excavating and trenching activities,
- Hot work operations, or
- Access to roofs of buildings.

If a hazardous condition is identified by EHS during such work, it shall be immediately corrected. If it cannot be immediately corrected, the agency/firm shall stop work and shall take effective steps to isolate the hazardous condition from personnel and the public. Repeat safety violations of a similar nature or willful disregard for VDLI/OSHA requirements, or the requirements outlined in this program will result in immediate removal from Virginia Tech property.

Work Site Inspections

Work site inspections may be conducted by EHS or other designated university personnel solely for the benefit of the university, and shall not relieve the contractor of responsibility for enforcement of, and compliance with, VDLI and OSHA regulations.

If work site conditions exist that potentially impact the safety of university employees, students, or the public, the university inspector shall issue a verbal or written warning to the Contractor, and shall notify the university Project Manager. If the unsafe condition cannot be immediately corrected and represents a danger, or has the potential to harm university personnel or visitors, then the university inspector will:

- Assure that other university personnel or the public onsite are warned to avoid the hazardous condition,
- Detail the VDLI and/or OSHA regulation(s) that are being violated, and explain the potential impact upon university personnel or the public, and
- Require that the university Project Manager has the Contractor either stop work or implement measures to isolate the hazardous condition until it is mitigated.

A formal written report of the violation(s) may be issued to the Contractor by EHS, and will be copied to the university Project Manager.

Non-Capital Projects

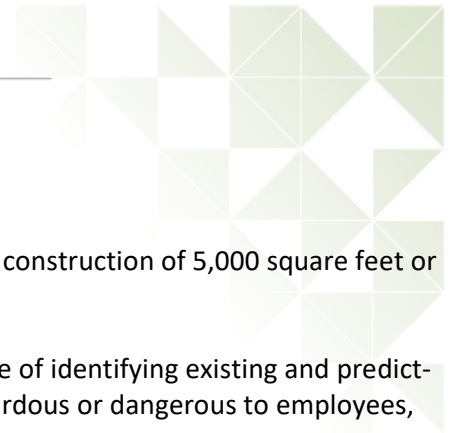
Reports of deficiencies may be factored into the evaluation of the contract by the university, and may be included in a vendor complaint file that is available for review by other state agencies. Repeat safety violations of a similar nature and/or a single serious, willful safety violation by a contractor may warrant review and termination of the contract.

Capital Projects

The provisions of all rules and regulations governing health and safety is issued by VDLI under Title 40.1 of the Code of Virginia apply to all work performed on capital projects. The Contractor shall be solely responsible for health and safety precautions and programs for workers and other in connection with the work as outlined in the *General Conditions of the Construction Contract* (G.S. E&B CO-7).

Inspections conducted by EHS and/or regulatory agencies (e.g. Virginia Occupational Safety and Health Administration) shall be coordinated with the university Project Manager.

In the event that worksite conditions exist that present an imminent danger to life or health for the Contractor's personnel, EHS may order the cessation of hazardous activity until the danger from such condition is abated, or adequate measures are implemented. The Contractor shall take prompt corrective action to address the hazardous condition as required by the *General Conditions of the Construction Contract*.



Definitions

Capital Project: A project whose total project cost exceeds \$2,000,000 and/or the construction of 5,000 square feet or more.

Competent Person: As related to excavation/trenching/shoring, one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Confined Space: A space that is large enough for a person to enter, that has limited means of egress, and this is not designed for continuous human occupancy. Examples include tanks, vessels, vaults, pits, bins, hoppers, silos, etc.

Contracting Department: The department at the university that is contracting, coordinating, or approving the work to be performed by a Contractor.

Contractor: An entity or agency employed by the university to perform the installation or maintenance of equipment, or the renovation or construction of a building, room or space on university property, or that provides services to the university on university property including, but not limited to, vending and the supply and erection of tents.

Friable Asbestos: Any material containing greater than 1% asbestos that is capable of being reduced to powder by hand pressure when dry, or a non-friable asbestos material that is subject to grinding, sanding, cutting, or abrading, or that is otherwise rendered friable by other means.

Lockout/Tagout: The control of a hazardous energy source(s) by means of de-energization, application of an isolation device, lock, and tag for the purposes of personnel protection.

Serious, Willful Safety Violation: A work activity with a substantial probability that death or serious physical harm could result, and where the hazard was known or should have been known, but the work activity was continued regardless of the existence of the safety hazard.

University Project Manager: The representative from Virginia Tech that coordinates the work of the Architect/Engineer related to construction and/or renovation projects.