

Contractor Safety | Project Management

Applicability

Any ASU employee who oversees contractors or vendors involved in construction, renovation or demolition activities must ensure that each contractor or vendor has completed a Service Provider Acknowledgement Agreement - see Appendix C. In addition, any supervisor overseeing contractors or vendors should be aware of the following information and notify the contractor to address any inconsistencies noted related to the following.

Equipment

All equipment brought to a project site by contractors must be in safe operating condition. All guards must be in place, and meet or exceed all applicable governmental regulations - OSHA, EPA, DOT, etc.

Transfer of flammable liquids to containers, equipment and vehicles

All small quantities five gallons or less of flammable liquids must be stored in an approved UL listed safety can in approved storage areas at the project site. Equipment refueling must be accomplished by using vehicles and hoses that are maintained, inspected and in good condition -appropriate bonding and grounding as required. All vehicle engines must be turned off during refueling activities. Using ASU fuel pumps for refueling contractor equipment is prohibited. ABC rated dry chemical fire extinguishers 10-lb.minimum must be provided in the immediate area of the refueling and chemical storage areas. It is recommended that the transfer of flammable liquids from drums to small containers incorporate the use of grounding and bonding.

Electrical safety | lockout-tagout

Work on ASU electrical systems is prohibited unless contractors, vendors or employees have been given authorization by University Services Management including both the Capital Programs Management Group and Facilities Management, or FM. These systems include premise wiring, wiring for connection to supply, installations of other outside conductors on the premises, installations of optical fiber cable where such installations are made along with electrical conductors and work around exposed energized parts. All work on electrical systems must be performed in a "De-Energized" state as required by OSHA unless employees have been authorized to work on systems live and they are trained and certified. Exceptions to the De-Energized rule may be made for work where it can be demonstrated that de-energizing introduces additional or increased hazards or when troubleshooting or maintenance can only be performed on a live system. Only authorized/qualified persons may work on electric circuit parts or equipment that has not been de-energized. Such persons shall be capable of working safely on energized circuits and shall be familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials and insulated tools. ASU employees who are authorized to work on ASU systems are the authorized Facilities Maintenance staff and licensed/bonded electrical contractors and sub-contractors, working from designs that have been reviewed and approved through the University Services permit review process. For systems that are de-energized and subsequently locked and tagged out, ASU personnel and contractors must inform each other of their respective lock-out tag-out procedures and shall understand and comply with the applicable restrictions and prohibitions. ASU employees are required to perform lockout - tagout in accordance with the ASU policy and programs.

Confined space entry

Project managers are responsible for the following:

- Identifying requirements for compliance with applicable confined space entry regulations and applicable portions of this plan in contract specifications.
- Interfacing with contractors where enforcement of confined space contract provisions is required.



- Notifying the contractor of the locations of permit-required confined spaces as identified by the confined space inventory where contractors will require access to inventoried confined spaces in order to completer work under the scope of a contract.
- Overseeing contractors requiring confined space entry.
- Providing EHS with the information necessary to update the confined space inventory when confined spaces are created or modified during campus constructions and renovation projects.

If a contractor is performing work that requires a confined space entry, the contractor must provide employees who are trained and qualified as required by 29 CFR 1910.146 i.e. Authorized Entrants, Attendants, Entry Supervisor or Competent Person, Rescue and Emergency Services, etc. Reference the ASU Confined Space Entry Plan for additional information.

Excavation safety

All excavations on ASU property must be performed in accordance with applicable OSHA regulations - shored, sloped, shielded, barricaded, acceptable egress, etc. The contractor is responsible for providing a competent person at every excavation site. This individual must be capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them. Also, he or she must be able, through experience or training, to determine the suitability of equipment or materials used for support systems, shield systems, and other protective systems. Prior to starting the actual excavation, the contractor must ensure that all underground utility installations in the area such as electrical, phone, gas, sewage, water, irrigation and fuel lines have been identified -blue staked, coordinated through Facilities Planning and Development at 480-965-3633.

Hazard communication or HAZCOM Standard

OSHA requires that contractors train their employees in basic chemical safety precautions for chemicals they work with, so as not to cause a hazard for themselves and others in the vicinity. The contractors must manage all necessary PPE for their employees. ASU expects that all contractors will comply with OSHA's HAZCOM Standard requirements. Project Manager's must ensure that contractors make SDS's available for chemicals used in areas where EHS faculty, students, and staff may be exposed.

Personal protective equipment or PPE

Contractors must not create hazards for ASU employees, students and visitors. Hazardous areas should be properly secured and signage should be posted to identify PPE required at the project site and hazards posed by site activities. If non-contractor persons need to enter or pass directly through the work area, the contractor may be expected to provide appropriate PPE for such visitors at any time. The PPE to be made available is dependent on the hazards posed by construction activities. Typically, hard hats and safety glasses are required. Safety equipment supplied and used by contractors is expected to comply with OSHA requirements.

Hazardous materials

PPE for There are many hazardous materials at ASU. These materials are typically found in laboratories in the form of chemicals, biological agents, and radioisotopes. Contractors must avoid creating an unsafe work environment or cause disruption of any lab activity when working in these areas. The following precautions should be followed by the contractor before working in a laboratory or hazardous material storage area:

- Advise the laboratory supervisor or primary researcher of the work that will be completed.
- Avoid contact with any lab equipment left in the work area.
- Do not allow the disposal of chemicals or hazardous materials via sinks, drains, ground disposal or by evaporation.
- Ensure compressed gas cylinders are clearly labeled to identify their contents and chained or otherwise secured to a fixed object, such as a wall, to prevent them from falling and releasing their contents.



• Stage portable fuel tanks way from storm drains and any body of water and ensure the tanks are properly labeled and have secondary containment to contain any spills or leaks.

Safety Data Sheets, or SDSs, for all chemical compounds used at the job site should be immediately available on- site or off-site. Contractors must be capable of providing a SDS within 1 hour of an incident. Contractor employees should carefully read container caution labels and be able to provide information concerning the hazardous materials they are using or storing.

Hazardous and regulated waste

ASU requires that materials or substances classified as hazardous or regulated waste is handled carefully and receive proper disposal. Examples include, but are not limited to: paints, thinners, glues, solvents, gas cylinders, cathode ray and television tubes, all electronic lamps, lamp ballasts, batteries, ACM, LBP debris, oils/fuels, Freon, glycols, corrosives, and CFCs. Shipments of hazardous and regulated waste must be processed through EHS. Disposal costs for these materials will be charged back to the project. The University is only responsible for university generated waste. Hazardous waste generated by the contractor will be the contractor's responsibility and will not be processed by the university.

Hazardous waste generated by contractors may not be stored on-site during construction and renovation projects, except ACM and LBP abatement projects. Storage related to these projects must be in a secured indoor area in containers or outdoors in a covered roll-off that are marked with the words hazardous waste and a description of the waste, and the date waste was first placed in the container. All containers must be ingood condition and closed when waste is not being added to the container.

All electronic lamps are to be removed from fixtures with care and placed in special cartons provided by EHS. Since these lamps contain mercury it is important that they are not broken, releasing toxic mercury dust and vapor into the environment. Coordinate the removal and disposal of these materials with EHS. All fluorescent lamp ballasts, both PCB or Polychlorinated Biphenyls and non-PCB must be removed from fixtures and placed in pails or drums for disposal by EHS.

Batteries any type may not be disposed of in trash containers. EHS collects these batteries for proper disposal or recycling. Batteries used by contractors are the contractor's responsibility and are to be removed from university premises when spent.

Asbestos removal from university buildings is considered regulated waste and is the responsibility of the asbestos abatement contractor to properly remove and dispose as required by their contract and applicable regulations. CPMG Services and EHS coordinate the assessment and removal of asbestos in existing structures.

Lead-based paint removed from structures or their components is considered hazardous waste and must be properly disposed of. Coordinate the disposal process, including manifesting and scheduling of any containers or roll-off dumpsters with EHS and CPMG. ASU's controlled waste vendor requires at least 3 days advance notice to deliver a roll-off container. EHS will assist in determining if paint or painted material contains lead and if it requires special handling or disposal as a hazardous waste. Tritium gas-containing exit signs, when removed under renovation work, must be collected and disposed of properly. Contact EHS to evaluate and assist with this process.

Spills and releases: Regulatory agencies require containment and remediation of all spills or releases of hazardous materials, including fuels, oils and anti-freeze. Contractors who spill, or detect a release, of a hazardous material on ASU property must report it immediately to EHS or the campus police. Clean- up costs resulting from a spill or release caused by a contractor are the contractor's responsibility. Depending on the substance and quantity, EHS may notify regulatory agencies. Cleanup and restoration of the contaminated area must be performed to regulatory and ASU acceptable levels. EHS will coordinate analytical testing to



determine the extent of the contamination and the acceptable cleanup level. EHS, at its discretion, may elect to conduct the cleanup and charge associated costs to the project or allow the contractor to conduct the cleanup based on the material released and site conditions. If the contractor conducts the cleanup, proper documentation, including manifests, for the disposal of the hazardous material, contaminated soil, and any other materials contaminated during the spill or release must be provided to EHS.

Additional information

Contact ASU EHS office: asuehs@asu.edu

Questions? Contact ASU Environmental Health and Safety at 480-965-1823 or email <u>asuehs@asu.edu</u>.

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