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Environmental Health & Safety

**SERVICE PROVIDER JOB-SITE  
SAFETY INFORMATION &  
GUIDELINES ORIENTATION**



July 2015

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[email](#)

The guidelines contained in this document were developed for all ASU service providers, sub-contractors, supervisors, and their employees.

**Safe work practices are a condition of your contract with ASU.**

## **IMPORTANT**

**ALL INCIDENTS OR ACCIDENTS MUST BE REPORTED AS SOON AS PRACTICAL TO EH&S. FAILURE TO DO SO MAY RESULT IN TERMINATION OF THE CONTRACT.**

**PRIOR TO COMMENCING ANY WORK THE SERVICE PROVIDER IS REQUIRED TO HAVE REVIEWED THIS DOCUMENT AND PROVIDE EHS WITH A COMPLETED AND SIGNED [SERVICE PROVIDER ACKNOWLEDGEMENT/ASBESTOS DISCLOSURE AGREEMENT](#) THAT HAS BEEN PROVIDED TO YOU. A COPY OF THE SERVICE PROVIDER ACKNOWLEDGEMENT AGREEMENT IS ALSO LOCATED ON THE ENVIRONMENTAL HEALTH AND SAFETY WEBSITE.**

## PLEASE NOTE

ASU will give to the service provider supervisor any additional or special information pertaining to the specific worksite as part of the Contract Documents with ASU prior to the construction start date. Depending on the work location, there may be site-specific requirements and guidelines not covered by this document.

This document is meant to serve as a guide for the service provider, any and all its supervisors, and any and all its subcontractors during their performance within the scope of work under the contract with ASU. This document is not intended to address every potential safety and health issue that may arise during the scope of the contracted work. The service provider bears the responsibility and liability for the environmental, health, and safety issues created or otherwise arising from its work under the contract with ASU. While ASU/EHS retains the right to review the work of the service provider, its supervisors, and its subcontractors, EHS does not assume responsibility for any issues identified outside of contract compliance.

## **I. INTRODUCTION**

ASU recognizes that there are many hazards inherent in industry. However, through responsible and reasonable safety and health practices, these hazards can be controlled. There is no doubt that working safely has great humanitarian value and enhances employee morale. Furthermore, accident-free work will prove to be more profitable for the service provider, and its clients. Therefore, we

require you to give particular attention to the safety and welfare of your employees as well as our employees in the workplace and the conservation of the resources committed to the contracted work. This document sets forth certain guidelines and rules of operations on ASU sites. **IT CANNOT COVER EVERY POSSIBLE SITUATION.** Accordingly, ASU expects each service provider to supplement these provisions with proper instructions and work practices that, based on knowledge and experience, will decrease the likelihood of injury to the employees, subservice providers' employees, and to others, as well and prevent damage to property and material on ASU sites. At a minimum, service providers will operate in Compliance with all pertinent local, state, and federal regulations, including those issued under, and since, the Occupational Safety and Health Act of 1970.

**THE SERVICE PROVIDER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ANY REGULATIONS ISSUED THEREAFTER.**

Additional and special requirements may be issued in conjunction with this document, both of which are to be considered as part of your contract. Your Project Manager will review all particulars of your Project with you.

## **II. DEFINITIONS**

Authorized Operator – A qualified and properly trained person assigned by the service provider supervisor to operate a given vehicle, piece of equipment, or a tool.

Project Manager – Project Engineer, CPMG Contract Administrator, EHS coordinator, person designated by specific site, project coordinator, or EHS contact/job representative.

Service provider – refers to any individual, company, or corporation who is hired by ASU or an ASU employee to provide construction, repair or maintenance related services on ASU property or facilities. That shall include all service provider employees as well as any employees of any subcontractor retained by service provider or over whom the service provider has control.

Service provider Supervisor – An experienced supervisor who the service provider designates to represent it at the site and carry out the service provider's supervisory, statutory and contractual obligations.

dB(A) – Sound level in decibels read on the A scale of a sound-level meter. A unit of measure for noise that, weighs measured noise by diminishing lower frequencies, which closely approximates the response of the human ear to noise.

## **II. DEFINITIONS (continued)**

EHS -- ASU Department of Environmental Health and Safety.

CPMG – ASU University Services Capital Program Management Group.

HVAC System – Heating, Ventilating, and Air Conditioning System.

MSDS – Material Safety Data Sheet. As part of hazard communication standards (right-to-know laws), federal and state OSHA programs require manufacturers and importers of chemicals to prepare information on their products.

OSHA – U.S. Occupational Safety and Health Administration, part of the U.S. Department of Labor. This agency sets limits on chemical exposures, develops safety standards and establishes other regulations to protect worker health and safety.

PEL – Permissible Exposure Limit. An exposure limit published and enforced by OSHA as a legal standard.

PPE – Personal Protective Equipment (i.e. hard hats, gloves, safety glasses, etc.)

psi – Pounds per square inch.

PTS – ASU Parking & Transit Services

Competent Person – An experienced/trained person whom, the service provider has designated to represent it for the inspection of tools, equipment, safety equipment, personal protective equipment, and methods of use.

TWA – Time-Weighted Average. Used to combine multiple samples of exposure to a hazardous substance taken on an employee for a full 8-hr shift to obtain an average daily exposure.

### **III. GENERAL PRINCIPLES OF PREVENTION IN HEALTH & SAFETY AT WORK**

- A. Eliminate or avoid risks
- B. Detect, anticipate, evaluate, and reduce the risks which cannot be eliminated.
- C. Fight risks at source
- D. Foster prevention through information and training
- E. Replace what is hazardous by what is less hazardous
- F. Adapt work to the employee
- G. Promote collective protection
- H. Use individual protection as a last recourse
- I. Take into account changes in technique

J. Give appropriate instructions to personnel

#### **IV. SERVICE PROVIDER RESPONSIBILITIES**

- A. All service providers and subcontractors superintendents, supervisors, and lead men shall attend the EHS Service provider Job-Site Safety Orientation course administered by ASU EHS. This orientation shall be completed prior to mobilization or commencing of work. Contact EHS for Orientation scheduled dates and times.**
- B. Service providers or service provider's employees who fail to follow EHS/CPMG work rules may be prohibited from working on the site and/or the contract with ASU could be cancelled. Working safely is a condition of your contract with ASU.
- C. The Service provider has the responsibility for on-site safety for all persons performing work under its control.
- D. In addition to the OSHA, federal, state, and local regulations, the service provider shall use "good judgment" consistent with that service provider's particular trade in cases where there is no precedent case or law.
- E. Service provider shall cooperate in any inquiries/inspections conducted by a government agency. Copies of all OSHA citation notices shall be submitted to ASU immediately upon service provider's receipt.
- F. Service provider shall ensure that all personnel are properly trained and instructed for all jobs which require specific training and/or competency to meet all applicable OSHA regulations, local, state, and federal law, and ASU requirements.
- G. Although service provider is and shall remain an independent service provider in the performance of all work under the contract, service provider shall also observe ASU safety requirements in order to achieve the results called for without subjecting person or property to unnecessary risk.
- H. Service provider shall fully comply with safety & health regulations and shall notify its employees, its subcontractors, and employees of its subcontractors of the contents of these regulations. No one shall begin work inside ASU property until such notification has been given to each person.
- I. Nothing contained in these regulations or in the information furnished by EHS/CPMG shall be interpreted to enlarge the legal duty of ASU to the service provider, its agents, employees, or subservice providers or its employees.

- J. Willful or negligent violation of these rules may result in your being prohibited from working at the ASU site or possibly the cancellation of your employer's contract with ASU.
- K. In the event of an incident to an individual on the work site, medical emergency, or fire the service provider shall notify EHS and the Project Manager as soon as possible within 24-hours of the incident/event. The service provider shall record the location of the event, the circumstances surrounding the event, by using photography or other means, and shall gather witness statements and other documentation which best describes the event. The service provider shall supply the Project Manager with a set of incident investigation documents no later than 36 hours after the occurrence of the event. In the event of a catastrophic incident (a fatality or a seriously injured worker [hospitalized] or a hazardous material exposure release requiring a community evacuation), call 911 and report the emergency immediately. The scene of the incident shall be barricaded and left intact until all investigations are completed.
- L. The service provider shall ensure that its employees are properly identified (Official issued Pictured ID and/or badge) and have been instructed about the boundaries of their work areas.
- M. All service providers shall conduct and maintain an educational program to assure the inclusion of and adherence to proper safety instructions as a part of employee job assignments. This includes such activities as weekly toolbox safety talks and joint safety meetings with all site service provider's employees. Training records shall be made available to ASU EHS upon request.

As a condition of performing work at ASU, service provider agrees that all work is to be done in accordance with all applicable laws and all other local, state, and federal rules and regulations covering such work; among others, the service provider shall observe and comply with all safety and health standards set forth under the Williams-Steiger Occupational Safety and Health Act of 1970, and all applicable federal, state, and local occupational safety and health regulations and standards.

## **V. EQUIPMENT**

The service provider is responsible for determining and providing the proper protective clothing for any anticipated physical, biological, radiological, or chemical exposure. In addition, all necessary tools and equipment, including personal protective equipment, shall be provided by the service provider and shall be properly maintained and appropriate for the safe accomplishment of the particular task.

- A. All such equipment shall be used only by service provider employees who have been properly trained and are otherwise qualified to safely use the tools and equipment.
- B. ASU retains the right to refuse or restrict the use of tools, equipment, or chemicals on the site.

- C. ASU will loan no tools or equipment to the service provider.
- D. The service provider shall not loan any tools, equipment, or personal protective equipment to any ASU personnel.
- E. Service provider use of any ASU equipment requires written authority from ASU.

## **VI. PERMITS**

Written, properly authorized, current permits are required **BEFORE** proceeding with the many types of work on campus. To prevent unnecessary delays, early consultation with your Project Manager, CPMG, and EHS regarding required permits is recommended. Permits will be obtained and posted at the worksite, and the instructions must be followed to the letter of the permit. Failure to do so will result in termination of the contract.

Examples of work requiring permits are Hot Work and Utility Shut Down request.

Fire System shut down: Consult with CPMG and/or the Project Manager.

## **VII. INDIVIDUAL RESPONSIBILITIES**

**Maintain adult, professional behavior at all times.**

- A. Horseplay, fighting, gambling, the possession or use of firearms, ammunition, weapons of any kind, alcoholic beverages, or illegal drugs is strictly prohibited.

## **VIII. SAFETY VIOLATIONS (SERVICE PROVIDER'S)**

Violations of site safety rules and procedures can jeopardize the welfare of both the service provider and site personnel. Violations of safety rules and procedures, either OSHA standards, site-specific ASU CPMG/EHS policies and/or operating procedures, or recognized industrial safety practices, may result in expulsion from the campus for a period determined by ASU. Continued violations, or a single significant event (evidence, incident, or violation) that is determined by ASU to pose an unacceptable risk due to a willful act on the part of the service provider or its employees may result in termination of the contract.

- A. ASU CPMG Project Managers or EHS representatives have the right to observe and stop work until any identified safety violations are corrected. The service provider has the responsibility to comply with ASU CPMG/EHS directives. Failure to comply with the recommendations could result in termination of the contract.

- B. Depending on the circumstances and the degree of risk associated with an initial infraction by a Service provider employee, the following actions may be taken:
1. A verbal warning may be given to the service provider supervisory personnel and affected individual.
  2. The service provider employee will be excluded from further participation in the contracted scope of work.
  3. The service provider employee will be forever barred from participating in any contracted work at ASU.

### **VIII. SAFETY VIOLATIONS (SERVICE PROVIDER'S) (continued)**

- C. The removal procedure may be accelerated and/or expanded to include removal of a service provider's or the subcontractor's entire workforce where safety violations are widespread or repetitive.
- D. Service providers who are uncooperative or that have an unsatisfactory safety evaluation can be removed from bid lists for a period designated by ASU EHS.

### **IX. GENERAL SITE INFORMATION**

Failure on the part of the service provider or subcontractors to comply with the items listed below may result in termination of the contract. Prior to working in areas where site-related hazards might be present, consult EHS or the Project Manager for information with regard to the following:

- Area safety requirements and special information which the service provider supervisor must relay to his/her employees.
- Restrictions on type of work to be performed.
- All permit requirements.
- Location of lockout points/disconnects.
- Potential changes in work environment, including unexpected liquids or vapors.
- Special training that may be required for the work.
- Location of emergency alarms, evacuation routes, and assembly points for the work area.



- Permission must be obtained from the Project Manager whenever it is necessary for personnel to go to the roof of any building.
  - Lunch and break areas are to be coordinated through the Project Manager.
  - Explosives of any type are prohibited on the site with the **exception of Powder Actuated Tools.**
  - Parking Permits, Barricades, and Vehicle Control Regulations. (Contact the Project Manager and/or PTS at 480-965-9297 for further information.)
  - Barricading of ASU streets (contacting ASU Police at 480-965-3456 is required prior to any barricades being set).
- M. Service providers are required to observe all ASU building rules such as no animals, no weapons, no bicycling, and no smoking within 25' of the building entrance.

## **IX. GENERAL SITE INFORMATION (continued)**

### **Site Entry**

- A. Service provider personnel, equipment and materials must enter the campus only through designated entry points as provided by ASU. Failure to adhere to these procedures may result in prohibited access on the part of the service provider or subservice provider.
- B. Access routes to and from locations and emergency exits must be adequately lighted and maintained free and clear of obstructions ([OSHA CFR 1926.56 Illumination](#)). Consult the Project Manager & EHS for access routes for evacuations, roofs, and for special items such as ASU Tunnel System entrances and/or “Confined Space Entry.”
- C. The service provider shall take the necessary precautions to control access onto the construction site including observing Campus Mall load limit restrictions. (Contact Project Manager)

### **Clothing**

- A. Shirts and trousers covering the legs and ankles shall be worn at all times. Complete arm protection will be required in some operating areas. Shorts, sleeveless shirts and tank tops are not permitted.
- B. Avoid loose clothing, which may get caught in machinery.

**Medical**

- A. ASU medical facilities, if present, will be made available only in emergency situations where the severity of the injury dictates immediate attention. In case of such an emergency call 911.
- B. The service provider must provide and maintain a supply of first aid items appropriate for the work being performed.
- C. The service provider shall report to the Project Manager all job-incurred injuries or hazardous material exposures. (See section IV Service provider Responsibilities, sub-section “K” reporting injuries).

**X. SPECIFIC PROCEDURES****Asbestos**

- A. EHS or the Project Manager is responsible for identifying and notifying the service provider of all known asbestos-containing materials in the proposed work areas.
- B. Special handling procedures and an ASU permit are required for any work with asbestos-containing materials.
- C. ASU must approve any asbestos-related work.
- D. Asbestos abatement is to be coordinated through ASU and performed only by a certified service provider according to governmental regulations.
- E. If the service provider should come into contact with material they suspect is asbestos, work should be stopped immediately and reported to the Project Manager or EHS.

**Asphalt Kettles and Melting Pots**

The potential for fire and serious burns is ever present when heating asphalt and related materials. As such, ASU EHS requires the following measures:

- A. Prior to starting a hot asphalt roofing job the service provider must meet with the ASU EHS and CPMG Project Manager to discuss ways to minimize the building occupants’ potential exposure to asphalt fumes. When possible, nearby air intakes such as doors, windows, and HVAC inlets should be closed or isolated.
- B. Keep all kettles and melting pots on the ground outside and at least 25 feet away from any building or combustible material. No melting pots or kettles are to be used on roof surfaces.

- C. Be sure the melting chamber is vented and inspect hoses, clamps, gauges, tools, fuel tank, and bucket handles before starting.
- D. The service provider must request and obtain a Hot Work Permit through the ASU CPMG Project Manager prior to firing the vessel.
- E. A service provider supplied fire watch with an approved extinguisher must stay with the melting pot at all times and until it completely cools. A second fire watch with approved extinguishers will be needed on the roof if the melted material is transported to roof surfaces and must remain there 30 minutes after the job has ended. Maintain careful temperature control with molten material to prevent accidental ignition.
- F. Keep the lid of the kettle closed at all times except when reloading.
- G. Erect barricades or restrict access around the kettle and any area where hot asphalt is present and/or used overhead.

### **Barricades**

- A. Barricades are required around all construction sites and all excavations, holes, or openings in floors or roofs, elevated platforms, certain types of overhead work, restricted access areas and wherever otherwise necessary to warn people against the potential for falling in, through, or off. Barricades must be suitable for the area of use.
- B. Prior to erecting any barricades, the service provider shall submit to the Project Manager a site safety plan addressing Interim Life Safety Measures. ASU Police must approve any street barricades by calling 480-965-3456. Additionally, contact ASU Parking & Transit Services (PTS) prior to placing any barricades in and around construction sites.
- C. When operating equipment (i.e. forklifts, scissor lifts) or conducting overhead work within a barricaded pedestrian walk way, a flagman will be present to ground guide the equipment and to warn pedestrians of overhead work.
- D. Barricades shall be removed promptly when no longer needed.

### **Compressed Gas Cylinders (Welding Gases)**

Never use oxygen to operate pneumatic tools, pressurize a container, blow out lines, or as a substitute for compressed air or other gases. See “Tools” for additional information on compressed air use.

- A. All cylinders must be secured in an upright position at all times.

- B. Oxygen and fuel cylinders are to be separated by at least 20 feet when in storage, and placed away from exposures that may rupture the tanks.
- C. Cylinders must have valve protection caps when in storage or in transport.
- D. Cylinders shall be labeled as to the nature of their contents.

### **Concrete and Masonry**

- A. Service provider must not place loads on any concrete structure until a qualified service provider employee/representative has made a determination as to its structural limitations.
- B. Service provider must guard all protruding reinforcing steel (rebar) to eliminate the hazard of impalement.
- C. Service provider must not remove any forms or shoring until the determination that the concrete has gained sufficient strength to support its weight and superimposed loads.
- D. Service provider must establish a limited access zone whenever a masonry wall is being constructed. Masonry walls must be braced to prevent collapse and/or overturning.

### **Confined Space Entry**

- A. A confined space may be entered only with a valid Confined Space Entry permit from ASU and full compliance with the instructions on the permit. The service provider is responsible for providing properly trained personnel, appropriate equipment, and instrumentation to perform proper confined space entry and work.
- B. Service providers are required to provide their own entry equipment (including, but not limited to, PPE, ventilation, lock-out devices, body harness, communication equipment, and calibrated monitoring equipment) and perform their own entry monitoring.
- C. Service providers are required to coordinate all entry operations with the site CPMG Project Manager and ASU EHS.
- D. Service providers shall be equipped and trained to rescue their own personnel or subcontract personnel. IN NO EVENT WILL ANY ASU location employee accept responsibility for rescuing personnel. If the service provider is not equipped to rescue its own employees, it must secure the availability of local outside rescue services before the work is initiated.

### **Control of Hazardous Energy**

See [Lockout/Tagout](#)

## Corrosive Acids and Caustics

See [Waste Section XXII](#)

### Cranes

- A. All overhead lifting/hoisting equipment must be equipped with a manufacturer's name plate and capacity specification.
- B. The service provider is responsible for the proper operating condition and capacity of the crane.
- C. Minimum Operator Qualifications – Only qualified contract employees will operate the crane. Operators shall provide proof of certification or licensing to operate the specific type of equipment which he/she will operate. Proper separation distances shall be maintained by the operator at all times.
- D. Motorized crane engines must be stopped before refueling. A fire extinguisher must be present during refueling and must be immediately accessible.

### Demolition Work

- A. Changes in planned scope of work (including start dates) must be reported to the Project Manager immediately. Any changes in the work may require suspension of the work until further notification.
- B. When undertaking demolition work, an engineering survey must be completed prior to the start of the demolition project to determine condition of the framing, flooring, and walls.
- C. Service providers must provide their own containers for debris and the containers must be covered as appropriate.
- D. Demolition involving concrete floor slabs, roofs, wall, or any area with suspected power utility conduit or wiring must be checked with an instrument of reliable technology to detect the presence of electricity prior to demolition.
- E. During demolition, existing automatic sprinkler systems shall be retained in service as long as reasonable. (See EHS [Remodels and Construction Compliance Guidelines](#))

### Dust, Fumes, and Odor-Producing Work

- A. Prior to generation of dust and/or fumes adjacent to occupied areas, the service provider must notify the Project Manager to coordinate any clearances, smoke detector isolation, and notification of affected areas.
- B. The service provider is responsible for exposures to its employees, including ensuring that its employees are not exposed to exposure levels in excess of the applicable OSHA standards.

**Electrical – Temporary Wiring, Lights, etc.**

- A. All work should be done by personnel familiar with code requirements and qualified for the class of work to be performed. Appropriate personal protective equipment (PPE) should be used as necessary.
- B. All temporary power panels and energized parts of wiring or equipment shall be fully guarded to protect all persons or objects from harm. In addition, switches, fuses, and automatic circuit breakers should be marked, labeled, or arranged for ready identification of circuits or equipment supplied through them.
- C. All circuits should be protected against overload.
- D. All electrical wiring and equipment should be a type listed by the Underwriters Laboratories (UL) or another recognized test or listing agent for the specific application.
- E. Ground fault circuit interrupters (GFCI) are required in all circuits used for portable electric tools and equipment.

**X. SPECIFIC PROCEDURES (continued)**

**Electrical – Temporary Wiring, Lights, etc. (continued)**

- F. Flexible cord sets used on construction sites shall contain the number of conductors required for the service plus an equipment ground wire. The cords should be hard usage or extra-hard usage. Approved cords must be identified by the word “outdoor” or “weather-approved” on the jacket.
- G. Electrical wire or flexible cord passing through work areas should be covered or elevated to protect it from damage by foot traffic, vehicles, sharp corners, projections, doorways or pinching. In addition, patched, oil-soaked, worn, or frayed electrical cords or cables shall not be used.
- H. Extension cords or cables shall not be fastened with staples, hung from nails, or suspended by bare wire.

- I. Flexible cords should be used only in continuous lengths without splices, except that molded or vulcanized splices may be used if made by a qualified electrician. The insulation should be equal to the cable being spliced, and wire connections will be soldered.
- J. Bulbs attached to temporary lighting strings and extensions cords shall be protected by wire guards or the equivalent unless deeply recessed in a reflector. Temporary lights should not be suspended by their electric wire unless the cord and the lights are designed for this suspension.
- K. Exposed empty light sockets and broken bulbs are not permitted and must be immediately corrected.
- L. Upon completion of the project, the temporary lighting shall be removed by the service provider.
- M. All construction temporary lighting shall provide the required ft. candles as specified by 29 [CFR 1926.56\(a\)](#) regulations and any related [NFPA 101 Life Safety codes](#).

#### **Excavations**

- A. The service provider must notify the Project Manager prior to any excavating.
- B. The Project Manager will be involved in determining overhead and known underground utilities including the extensive ASU Tunnel System.
- C. Service provider material for bracing and shoring must be in good condition and of proper dimensions.
- D. Excavations are to be reviewed each day by a competent service provider individual before entering and after a heavy rain.
- E. The service provider must assess soil conditions to determine type of bracing or sloping required for the excavation (Type A, B, or C).
- F. Excavated material must be piled at least three (3) feet back from the edge of the excavation.
- G. Service provider to provide barricades around excavation areas to protect people from falling into the trench before digging begins (lighted barricades must be provided at night). See **Section X. SPECIFIC PROCEDURES** "[Barricades](#)."
- H. No one is permitted in an excavation while equipment is in operation next to the edge of the excavation.

**Fall Protection**

- A. All work performed six (6) feet or more in elevation or within four (4) feet of an unprotected floor opening, wall opening, or roof edge with a potential six (6) foot fall requires optimum fall protection.
- B. Approved techniques for providing optimum fall protection include:
  - 1. A properly manufactured, erected, secured and maintained ladder of appropriate size for the task.
  - 2. A properly manufactured, erected, and maintained scaffold with complete handrail system (top rail, mid rail, toe boards).
  - 3. A properly inspected, operated, and maintained mobile bucket or scissor lift. Service providers working with mobile buckets or scissors lifts must work within the confines of the railing and be tied off utilizing a full body harness.
  - 4. A properly designed and maintained full body harness equipped with a shock absorbent lanyard with double-action snap hooks, inertia reels, and support cabling.
  - 5. Maintain guarding at all openings along roof edges, building edges, and floor openings with guard rails, barricades, and/or covers.
  - 6. Other pre-approved methods designed by a registered Professional Engineer (i.e. netting systems, cabling systems).
  - 7. When using the body harness method of fall protection, the service provider worker must, at all times, be tied off by at least one connection between his/her body harness and a secured building structural member or other fall protection device. The tie off or fall protection device must be of adequate strength to support the fall of that particular worker. Connection points should be designed ahead of time in the design phase of the project work.
  - 8. Every employee to whom the service provider or its subservice provider issues a safety harness shall be instructed by a Qualified Person in the proper method of wearing, using, and securing it. Furthermore, every safety harness and lanyard must be inspected by a Qualified Person upon issue, and by the wearer before each use.

**Fire Protection**

- A. The use of ASU fire hoses and hydrants are prohibited.
- B. All personnel should know where the nearest fire alarm pull station is; how to activate the alarm; proper emergency and evacuation procedures; emergency signals for each work area; and the safe-area or designated assembly area (call ASU EHS 480-965-8695 for details).
- C. A Hot Work Permit is required before a service provider or subcontractor uses a flame/heat source (welding, cutting, etc.) on ASU premises. See EHS [Hot Work Compliance Guidelines](#) for additional details.



- D. Fire lanes to provide access to all areas should be established and maintained free of obstruction. “No Parking” areas should be designated around fire hydrants and fire-fighting equipment.
- E. Open flame devices shall not be left unattended.
- F. Only service provider-supplied ABC pressurized dry chemical type (min. 10 lbs) fire extinguishers may be used on ASU property. The Project Manager & EHS must be immediately notified of any fire extinguisher discharged on ASU property, and service provider shall fill out an incident report. See “Incident reporting.”
- G. Paint-soiled and oil-soaked materials, when not in use, should be stored in appropriate metal containers, steel cabinets or containers, and should be removed from the premises on a daily basis.

### Flammable/Combustible Liquids and Material

- A. Flammable and combustible liquids shall not be stored in areas used for exits, stairways, or passageways.
- B. Flammable and combustible material must be stored away from steam lines, radiators, heaters, hot process and any other heat source.
- C. In all areas where flammable and combustible liquids are handled or used, appropriate ventilation should be provided to prevent hazardous levels of flammable vapors from accumulating.
- D. Service provider-supplied fire extinguishers shall be located within 30 feet of flammable liquids or the liquid storage site of any flammable liquid stored under the Service provider’s control.
- E. Flammable liquids used in quantities of less than 55 gallons shall be contained in properly maintained “Safety” cans (**Plastic containers are prohibited**), listed by a nationally recognized testing laboratory, and identified according to their contents.

### Flammable/Combustible Liquids and Materials (continued)

- F. No more than 10 gallons of flammable or combustible liquid can be stored in a room outside of an approved metal cabinet. For quantities greater than 10 gallons, an approved metal storage cabinet should be used for indoor storage and labeled in conspicuous lettering, “**FLAMMABLE – KEEP FIRE AWAY.**” No more than 60 gallons of flammable or 120

gallons of combustible liquid should be stored in any one storage cabinet: and no more than three (3) such cabinets should be located in a single storage area.

- G. All flammables/combustible liquids & materials used in construction work on ASU buildings that are occupied must be removed from the premises at the end of each work day. Prior to storing any flammables/combustible liquids & materials for such construction on ASU property the service provider must receive approval from EHS.
- H. The service provider shall follow site-specific spill prevention procedures.
- I. Flammable-liquid dispensing systems should be electrically bonded and grounded.
- J. All flammable liquid containers must be maintained closed at all times, unless adding to or dispensing from the container.
- K. All outside storage areas should be at least 20 feet from any building.
- L. No flammable liquid with a flash point below 100<sup>o</sup>F should be used for cleaning purposes.
- M. For roof work, no more than a one-day supply of flammables may be placed on the roof during working hours. The service provider shall remove all flammables from the roof at the end of each day.

### **Floor Openings, Open Sides Hatchways**

- A. Floor openings and elevated platforms shall be guarded by standard railing and toe-board or cover.
- B. Temporary floor openings must have standard railings.
- C. All holes through floors, decking, walls less the three (3) above the floor or other openings shall be guarded by either a standard railing with standard toe-board on all sides, or a standard floor-hole cover. They must be placed immediately after completion of the penetration and maintained until filled in or provided with an access control device to prevent their displacement. Service provider is responsible for providing covers of such structural dimension as to prevent their failure upon normal and routine use.

### **Hazard Communication**

- A. The service provider must provide the Project Manager, with the product's Material Safety Data Sheet (MSDS) before any hazardous substance is brought onto campus.

- B. Chemical containers brought on site by the service provider must comply with all appropriate federal, state, and local labeling laws and must reflect their contents in clear, unmistakable language.

### **Hazardous Waste**

See “[Waste](#)”

### **Heating Devices (Portable or Temporary)**

- A. All service provider heaters brought onto site must be Factory Mutual and/or Underwriters Laboratories approved.
- B. Service provider must notify the responsible Project Manager and EHS of all liquid/gas-fueled service provider heaters brought onto the site prior to use.
- C. The use of liquid fuel heaters inside of buildings is subject to the Hot Work Permitting procedures and requires frequent monitoring of exhaust atmosphere. Exhaust levels must be maintained in a manner to ensure a safe breathing atmosphere.

### **High-Pressure Water Guns**

- A. Written notification must be provided to the Project Manager if high-pressure water cleaning (in excess of 5000 psi) is to be used. As with all other areas of work performed on the site, the service provider is responsible for assuring all personnel performing such work are fully trained and qualified.
- B. High-pressure cleaning equipment must be inspected daily and prior to each use.
- C. Units with a fluid pressure greater than 100 psi but less than 3200 psi:
  - 1. A manually actuated control (dead-man control) must be provided. The control actuator must be biased to the off position and located or guarded to reduce the likelihood of unintentional operation.
  - 2. The wand or lance length must be at least 36”, measured from the trigger mechanism to the discharge nozzle. If the wand or lance is the type that can be detached from the trigger mechanism, an interlock mechanism must be provided to prevent the discharge of fluid in excess of 100 psi when the lance or wand is removed.

### **High-Pressure Water Guns (continued)**

- D. Units with a fluid pressure greater than 3200 psi, but less than 5000 psi:

1. A manually actuated control (dead-man control) must be provided. The control actuator must be biased to the off position and located or guarded to reduce the likelihood of unintentional operation.
2. The wand or lance length must be at least 48”, measured from the trigger mechanism to the discharge nozzle. If the wand or lance is the type that can be detached from the trigger mechanism, an interlock mechanism must be provided to prevent the discharge of fluid in excess of 100 psi when the lance or wand is removed.
3. A protective cover or device must be used to shroud nonmetallic hose at the point where the hose connects to the lance. The protective cover should be at least two (2) feet in length from any holding or grasping point.

### **Hot Work - Including Burning and Welding**

- A. A Cutting and Welding Permit (Hot Work) is required in all areas before striking an arc or lighting a torch. Failure to obtain a proper permit through the Project Manager may result in termination of the contract. See [EHS Hot work Cutting and Welding Compliance Guidelines](#).
- B. Contact ASU CPMG at 480-727-0918 for an inspection, prior to beginning any cutting or welding, for a Hot Work Permit.
- C. Fire extinguishers of the proper size, type and in sufficient number shall be provided by the service provider and located within 30 feet of any welding, burning, or open-flame work. Service provider personnel trained in the use of the fire extinguisher shall be present during the permit period.
- D. The service provider is responsible for providing continuous fire watch during and for at least 30 minutes after any “Hot Work” has been completed.
- E. Acetylene/oxygen hoses and welding leads should not be run through doorways. If there is no alternative, the door shall be properly secured.
- F. No welding or burning is to be done on a closed vessel previously in use unless it has been decontaminated, approved by the Project Manager and the service provider complies with the [OSHA Confined Space Regulation](#).
- G. All exposed flammable and combustible materials below welding and burning areas must be removed to a safe location, covered with fire retardant material, or protected by containing all sparks and slag in an approved spark catcher. In addition, a fire watch equipped with fire extinguishing equipment must be provided on all levels that contain sparks or open flame.
- H. Welding leads and acetylene/oxygen hoses must be bridged over or otherwise supported a minimum of seven (7) feet above passageways. Such equipment may not be suspended from conduit, process lines, sprinkler systems, etc.

- I. Adequate ventilation must be provided by the service provider, taking into account the material being welded or burned and the area the work is being performed in relation to the employee population.

**Hot Work -- Welding – Electric**

- A. All work in operating areas must have a separate and adequate ground, pulled from the machine to the work location.
- B. Remove all used or otherwise discarded rods and place in a proper disposal container.
- C. The service provider is responsible for restricting the access into the work area through proper barricades and the placement of effective arc shields.
- D. The welding machine should be turned off when not in use.
- E. When electrode holders are to be left unattended, the electrodes shall be removed and the holder shall be placed so that it cannot make electrical contact with employees or conducting objects.

**Hot Work -- Cutting and Welding – Gas**

- A. All oxy-acetylene equipment must be disassembled, with regulators removed and protective caps installed hand-tight, prior to vehicular transporting.
- B. Compressed gas cylinders must be secured vertically to an adequate support while in storage, transit, or use. The protective cap must be on during storage and transit.
- C. The cylinder valves will be closed and the hose lines bled after completing the required burning or welding.
- D. At no time will an oxygen/acetylene torch be unattended and remain pressurized.
- E. All hoses, gauges, and torches shall be inspected before each use.
- F. A torch may not be left in a vessel, tank, or other closed container.
- G. Acetylene/oxygen torches must be equipped with flashback arresters.

**Hot Work – Other**

- A. [New Fuel Burning and Oil Containing Equipment](#) (See information in Appendix C.)

**Housekeeping (General)**

- A. All construction materials are to be stored in an orderly manner.
- B. Keep all exits and access ways unobstructed.
- C. Remove all scrap and trash from the job site daily.
- D. Scrap, trash, and other wastes shall be placed in designated containers authorized by the Project Manager.
- E. Metal containers with covers must be provided for disposal of oily and flammable/combustible soaked rags.
- F. Gang boxes are to be removed immediately from mechanical workspaces upon completion of projects.

**Incident Reporting (Accidents/Near Misses)**

- A. In the event of an incident to an individual on work site, medical emergency, or fire the service provider shall notify the Project Manager and ASU EHS as soon as possible within 24 hours of the event. The service provider shall record the location of the event, the circumstances surrounding the event, by using photography or other means, and shall gather witness statements and other documentation which describes the event. The service provider shall supply the Project Manager and EHS with a set of incident investigation documents no later than 36 hours after the occurrence of the event. In the event of a catastrophic incident (a fatality or a seriously injured worker [hospitalized] or a hazardous material exposure release requiring a community evacuation), all 911 and report the emergency immediately. The scene of the incident shall be barricaded and left intact until all investigations are completed.

**Industrial Vehicles Safety (Service provider Street Vehicles, Scissor Lifts, Steer Loaders, Forklifts)**

- A. Operators of vehicles and construction equipment must observe all site traffic regulations and ASU Mall Vehicle Load Limits.
- B. **Park in specified areas only.** The proper parking permit must be secured from ASU Parking and Transit Systems (PTS) and displayed properly in vehicles. Contact the Project Manager and/or PTS at 480-965-9297. Do not block entrance ramps, trash docks, and truck doors, etc.

- C. All passengers on motor vehicles must be seated and within the confines of the vehicle.
- D. All vehicles must be shut off when unoccupied.

**Industrial Vehicles Safety (Service provider Street Vehicles, Scissor Lifts, Steer Loaders, Forklifts)**

- E. When operating equipment (i.e. forklifts, scissor lifts) or conducting overhead work within a barricaded pedestrian walk way, a flagman will be present, to ground guide the equipment and to warn pedestrians of overhead work. **Pedestrians have the right-of-way at all times.**
- F. Vehicles, materials handling and other types of mobile equipment are not allowed on the site without the approval of the Project Manager, and can only be driven or operated by trained licensed personnel.

**Authorized Operators**

- A. The driver is responsible for the safety of all passengers and the stability of materials being hauled or handled by his/her equipment.
- B. All speed limits and other traffic signs must be obeyed.
- C. The motor shall be shut off before refueling. Refueling of vehicles is to be performed outside if possible.
- D. The Authorized Operator shall shut off the motor and set the brakes before leaving the vehicle controls.
- E. Personnel are prohibited as passengers on mobile material handling equipment or other vehicles designed for hauling equipment or material.
- F. A flagman shall direct traffic and backing vehicles in congested areas.
- G. All equipment attachments, such as end-loader buckets, forklifts forks, and like equipment parts, must be lowered to the ground before the Authorized Operator may leave his/her material handling equipment.
- H. All material handling equipment must have an audible back-up alarm.
- I. Riding crane hooks and other lifting equipment designed for materials only is strictly prohibited.

- J. No internal combustion vehicle or machinery is to be operated inside buildings unless proper engineering controls have been implemented to minimize carbon monoxide levels. Use of such equipment is to be approved by the Project Manager & EHS.

### **Inspections**

The service provider shall check all work areas and perform regular inspections to ensure that they meet the guidelines set forth in this document.

## **XI. Ladders**

### **General**

- A. Service providers at no time are to use ASU owned portable ladders or related equipment.
- B. Ladders must be inspected by a Qualified Person designated by the service provider and approved for use by that Qualified Person before being used by service provider. Ladders must be visually inspected before using.
- C. Painting ladders or the use of painted ladders is prohibited.
- D. If it necessary to a ladder in or over a doorway, barricade the door and post warning signs.
- E. No more than one person is allowed on a ladder at a time.
- F. Metal ladders must not be used for electric welding, or near any electric lines or services.
- G. Ladders are not to be used for skids, braces, workbenches, or any purpose other than climbing.

### **Step Ladders**

- A. Step ladders must be set level on all four feet, with spreaders locked.
- B. Never stand on the top or the first step below the top of a step ladder needed for lifting and placement of personnel, materials and/or ladder.
- C. Step ladders must be tied off when used close to the edge of an elevated platform, roof, floor opening, or when they exceed eight (8) feet in height.

### **Straight and Extension Ladders**

- A. Place ladder so that the base is out one-fourth the vertical distance from the ground to the object against which the ladder is leaning.



- B. All straight and extension ladders must be equipped with non-skid safety feet.
- C. Ladders must be adequately tied off/secured to support the load being raised.
- D. The top of a ladder used as access to an elevated work area must have clamps and should be inspected visually before use. Ensure to extend ladders no less than 36 inches above landing. Never handle loads.
- E. After extension section has been raised to desired height, the safety beyond the equipment's rated capacity.
- F. Extension ladder sections are not to be used separately.

## **XII. Lockout-Tagout (Control of Hazardous Energy)**

- A. For work areas specifically under the exclusive control of the service provider, the service provider is required to identify and control sources of hazardous energy.
- B. All service providers working on the equipment must affix their lock and tag.
- C. The lock must be removed at the end of the job with the approval of the originator.
- D. For work areas NOT specifically under the exclusive control of the service provider, the service provider is required to notify ASU CPMG Project Manager to inform them that a particular piece of equipment or system is being shut down.
- E. Never remove another person's tag or lock to operate a switch, valve, or device.

## **XIII. Personal Protective Equipment (Ear, Eye, Foot, Head, etc.)**

THE SERVICE PROVIDER RECOGNIZES AND APPRECIATES THAT IT IS RESPONSIBLE FOR SUPPLYING ALL NECESSARY AND REQUIRED PERSONAL PROTECTIVE EQUIPMENT FOR ITS EMPLOYEES AND ITS SUBSERVICE PROVIDERS. THE SERVICE PROVIDER IS ALSO RESPONSIBLE FOR INSURING THAT ITS EMPLOYEES AND THE EMPLOYEES OF ITS SUBCONTRACTORS ALWAYS WEAR AND USE ALL NECESSARY AND REQUIRED PERSONAL PROTECTIVE EQUIPMENT.

Service providers must determine minimum personal protective equipment (PPE) requirements for the site before beginning the work. Service providers may be required to wear additional PPE or use additional safety devices to accomplish their work. Service providers are responsible for selecting and maintaining required PPE and devices as well as ensuring that their employees are qualified to use all required equipment.

## Eyes and Face

- A. Safety glasses with side-shields meeting ANSI Z87.1 standards are required.
- B. The service provider is responsible for determining appropriate additional eye and face protection based on the anticipated hazards and accepted industry safe practices for the materials being used. Special purpose protection is required for particular exposures such as welding, burning, cutting, chipping, grinding, or handling hazardous chemicals.

## XIV. Personal Protective Equipment (Head, Eye, Foot, Ear, etc.) (continued)

### Foot

Industrial quality, work-boots shall be worn at all times; safety shoes with steel toes are preferred. Athletic-type tennis shoes of any type will not be allowed in the construction work area. The service provider is responsible for determining the need for additional foot protection such as toe or metatarsal protection.

### Hand Protection

Appropriate hand protection must be used as dictated by work-site function.

### Hearing Protection

Hearing protection is required where posted and in areas where noise levels exceed 90 dBA.

### Head

Hard hats complying with ANSI Z89.1 are required and must be worn in areas where there is a possibility of head injury from impact, fall objects, or electricity. All hard hats will be worn in conformance with the manufacturer's recommendations.

### Respiratory

- A. The service provider must advise the Project Manager & EHS of any work that may generate airborne contaminants in concentrations requiring the use of respiratory protection.
- B. The service provider is responsible for evaluating the employee atmosphere and determining the best method of exposure control.

- C. Engineering controls, such as ventilation at the source, fans and air movers, should be used to control airborne contaminants. If it is not possible to control vapors and fumes below the applicable levels, then respirators must be worn by exposed employees.

### Other

The service provider is responsible for determining the proper glove and clothing protection based on the known or anticipated exposure, i.e., high voltage or chemical handling, etc.

## XV. Radioactive Material

No radioactive materials, ionizing or Class 1 lasers may be brought onto campus property without the approval of the Project Manager or EHS. Consult with ASU EHS for specific rules regarding the handling and storage of such materials on site.

## XVI. Roof Access

- A. The service provider and the Project Manager must analyze the scope of the work and safety measures before the roof is accessed.
- B. The areas to be accessed during the work must be inspected to ensure that they are safe before entry.
- C. Before each shift, the service provider must receive permission from the Project Manager to access the roof.
- D. Appropriate fall protection systems must be utilized if work takes place within six (6) feet of a leading edge, unprotected skylight, or other floor opening. A guardrail system, safety net system, or personal fall arrest system are appropriate fall protection systems. See the section “X” Specific Procedures, on [“Fall Protection”](#) in this document.
- E. Rooftop hazards such as load bearing considerations and machine guarding issues should be considered prior to roof access.

## XVII. Scaffolds

- A. The service provider is responsible for selecting, installing, and maintaining scaffolds used on site for the contracted work. Due to the potential hazards associated with the use of and/or exposure to work being performed on a scaffold, the service provider shall take appropriate precautions while erecting, securing, utilizing, and removing the scaffolding. Personnel working under the scaffold will be kept to a minimum and provided appropriate protective equipment.

- B. If pedestrian traffic is anticipated in the immediate area, proper barricading will be placed to create a buffer zone, which directs the pedestrian traffic a safe distance away from the work area. The size of the buffer zone created by the barricades will be determined by the height of the scaffolding, the work being performed, and other site-specific risk factors such as wind conditions or building design. Where adequate sizing of the buffer zone is limited due to site conditions, a covered walkway of sufficient construction to protect the pedestrian traffic will be provided by the service provider. Contact the Project Manager and/or PTS prior to barricading.
- C. The use of scissor lift or other mobile scaffold equipment may create the same hazardous conditions as fixed scaffolds and will follow the same requirements as above. If any work requires a person to extend beyond the rails of the lift, then fall protection shall be utilized. See "[Industrial Vehicles Safety](#)" for additional information.

### **XVIII. Storage Areas**

- A. Equipment, material and vehicles should be properly stored in assigned areas as directed by the Project Manager.
- B. Each service provider is responsible for the maintenance of its assigned storage area.
- C. Material must be stacked, stored, or spotted so it can be reached readily by personnel and material handling equipment.

### **XIX. Structure Loading**

- A. Service provider shall not load structures with weight that will exceed the load limit of the structure.
- B. The service provider must check with the Project Manager for all load ratings.
- C. The service provider must know the capacities of its equipment and weights of load.
- D. Because of the extensive system of utility tunnels under ASU Tempe campus, the service provider must know the ASU Mall weight limits that are not to be exceeded in or around the work-site prior to beginning work and/or bringing any construction equipment on campus. The service provider must get permission to bring heavy equipment on campus from the Project Manager and/or ASU Campus Police and Parking Transit Systems. For additional information contact the Project Manager and/or Raymond Humbert at PTS at 480-965-9297.

**XX. Tools and Equipment (Electric, Gas, Hand, Pneumatic, and Powder Actuated)**

- A. All service provider tools and equipment brought into the ASU construction site must be maintained in a safe operating condition.
- B. The Project Manager or EHS personnel have the right to review service provider's tools and equipment at any time.

**Electric Power Tools**

- A. The service provider is responsible for assuring that all power tools used by its personnel and subservice providers are utilized appropriately and maintained properly. All tools and associated equipment must be inspected prior to use.
- B. Any questionable tools (and power cords) identified during the performance of the job are to be repaired or replaced immediately.
- C. Power tools shall not be operated without proper training, instructions, and guarding.

**XX. Tools and Equipment (Electric, Gas, Hand, Pneumatic, and Powder Actuated) (continued)****Electric Power Tools (continued)**

- D. Portable electric equipment and tools must be grounded, unless they are the "double insulated" type.
- E. Ground Fault Interrupters are required for tools used in wet areas.
- F. All service provider power tools must be double insulated or properly grounded.

**Gasoline-Powered Tools**

- A. All gasoline-powered tools and equipment must only be used in well ventilated areas. Service provider is responsible for notifying the Project Manager if the use of gasoline-powered equipment will occur indoors.
- B. Under no circumstances should the gasoline tank be replenished while the engine is running. Any gasoline spilled on the tank or engine should be carefully wiped off before starting the engine.

- C. Mufflers should be maintained in a good condition.

**Hand Tools**

- A. The service provider is responsible for assuring that all hand tools used by its employees and subcontractors are utilized appropriately and maintained properly.
- B. Hand tools must be inspected daily by the service provider or its representative.
- C. Any questionable tools identified during the performance of the job must be immediately repaired, replaced, or removed from service.

**Pneumatic**

- A. The service provider is responsible for assuring properly constructed hoses are utilized and that proper coupling devices and pneumatic tools are used.
- B. Compressed air shall not be used for cleaning person or clothing.
- C. Compressed air used for cleaning workbenches, machinery, or other equipment must be reduced to less than 30 psi when dead-ended.

**XX. Tools and Equipment (Electric, Gas, Hand, Pneumatic, and Powder Actuated) (continued)****Powder-Actuated Tools**

- A. Only Qualified Persons who have been authorized by permit shall be allowed to operate powder-actuated (explosive) tools.
- B. All powder-actuated tools shall be inspected daily before use and all defects discovered before or during use shall be corrected.
- C. Tools shall not be loaded until immediately before use. Loaded tools shall not be left unattended.

**XXI. Trenching**

See "[Excavations](#)" in section "X".

**XXII. Warning Signs**

- A. Obey all warning signs.

- B. Fully informative and legible signs appropriate to site hazards created during the service provider work shall be placed on barricade stands, posts, or other suitable stanchions before work starts, and be removed promptly upon completion of work.

### **XXIII. Waste (Non-Hazardous Waste, Scrap, Rubbish, Hazardous Waste and Disposal Chutes)**

- A. Consult the Project Manager & EHS for any waste disposal questions regarding the location of the proper containers.

#### **Disposal Chutes**

- A. Whenever materials are dropped more than 20 feet to any exterior point of a building, an enclosed chute shall be used.
- B. When debris is dropped through holes in the floor without the use of shuts, the area where the material is dropped and the area below shall be enclosed with barricades to protect area personnel.
- C. Warning signs of the hazard of falling material shall be posted at each level.

#### **Hazardous Waste Disposal**

- A. Disposal of combustible waste materials should be in compliance with applicable fire and environmental laws and regulations.
- B. All solvent waste, oily rags, and/or flammable liquids shall be kept in a fire-resistant covered container until removed from the work site.
- C. Any hazardous waste that is generated by the service provider must be properly managed and disposed of by the service provider (waste paint, waste solvents, used batteries). This does not include the removal or demolition of materials for which ASU is responsible. Hazardous waste management and removal of such items must be approved and coordinated by ASU EHS or its designee.
- D. [Light Bulbs and Ballast](#) (See Appendix B to determine if material is considered Hazardous)
- E. Mercury Containing Thermostats (See [Appendix B](#))
- F. Lead Painted Surfaces (See [Decision Tree](#) in Appendix A to determine if material is Hazardous and how to properly dispose.)

**Corrosive Acids and Caustics**

- A. Do not store, handle, apply, or use acids or caustics until a proper procedure has been established. Hazardous waste management and removal of such items must be approved and coordinated by ASU EHS or its designee.
- B. Do not flush chemicals into drains/sewers for any reason.

**Non-Hazardous Waste (construction debris)**

- A. The burning of trash and construction debris is prohibited.
- B. Place all trash, waste, and scrap in proper containers.
- C. All scrap lumber, waste material, and rubbish shall be removed from the immediate work area as the work progresses.
- D. Scrap, waste, and debris must be disposed of as needed; at minimum, these materials must be disposed of at the end of each shift.
- E. Lead Painted Surfaces (See [Decision Tree](#) in Appendix A to determine if material is Non-Hazardous and how to properly dispose.)
- F. All storm water inlets affected by the project, shall be protected by an adequate filtering material, inspected weekly and all repairs conducted immediately.
- G. Containers shall be covered or closed except when material is being placed in the container.
- H. If an accidental spill should occur, notify ASU EHS and the Project Manager immediately.

**Universal Waste**

- A. Universal Waste must be disposed of in accordance with appropriate regulations and ASU policy.
- B. [Light Bulbs and Ballast](#) (See Appendix B determine if material is considered Universal Waste)

**XXIV. Welding and Cutting**

See "[Hot Work](#)" section "X".

**XXV. Storm Water Pollution Prevention Plan (SWPPP)**



Storm water discharges generated during construction activities can cause physical, chemical, and biological water quality impacts and compromise the integrity of surface waters. Permit coverage is required under the Arizona Pollutant Discharge Elimination System (AZPDES) General Permit No. AZG2008-001 for construction activities that include clearing, grading, excavating, and stockpiling of fill material that result in land disturbance equal to or greater than one acre and the disturbance of less than one acre of land that is part of a larger common plan of development with the entire project ultimately disturbing one or more acres.

The basic principle of the construction General Permit is that construction project operators must identify areas and activities that may contribute pollutants to Storm Water and must implement Best Management Practices (BMP) to minimize these pollutants. Per ADEQ a certified Storm Water inspector shall conduct weekly inspections of the SWPPP. All inspections shall be documented and repairs done immediately. Therefore, prior to any disturbance activity commencing on ASU property and a construction building permit being issued the service provider must:

- A. Develop a Storm Water Pollution Prevention Plan (SWPPP) which includes BMP and Storm Water Inspectors identification and qualification.
- B. Submit a Notice of Intent (NOI) to Arizona Department of Environmental Quality (ADEQ).
- C. Provide a copy of the Authorization Certificate, Notice of Intent, and the SWPPP to CPMG.
- D. Service provider must maintain at the construction site copies of the Authorization Certificate, SWPPP, and Storm Water Inspection reports.
- E. Implement BMP outlined in the SWPPP before and during construction.
- F. File Notice of Termination (NOT) with ADEQ within 30 days once the project is complete.
- G. During construction activity, hazardous waste and construction debris shall not be dumped in any existing drywells, storm drains, storm drain inlets/outlets, and retention basins on ASU campuses. Violations can result in fines and termination of the construction contract.

The following is a brief example of what a SWPPP should contain:

**A. Site Description**

- 1. A description of the nature of the construction
- 2. Identify responsible parties for the site
- 3. Estimated total area and area disturbed
- 4. General location map

**B. Controls**

1. A description of appropriate control measures Best Management Practices (BMP) to be implemented.

**C. Maintenance**

1. A description of maintenance practices for BMP.

**D. Inspections**

1. A description of inspection requirements for BMP in disturbed areas.

**E. Non-Storm Water Discharges**

1. Identify any non-storm water discharges (i.e. vehicle washing, water line flushing, concrete wash off).

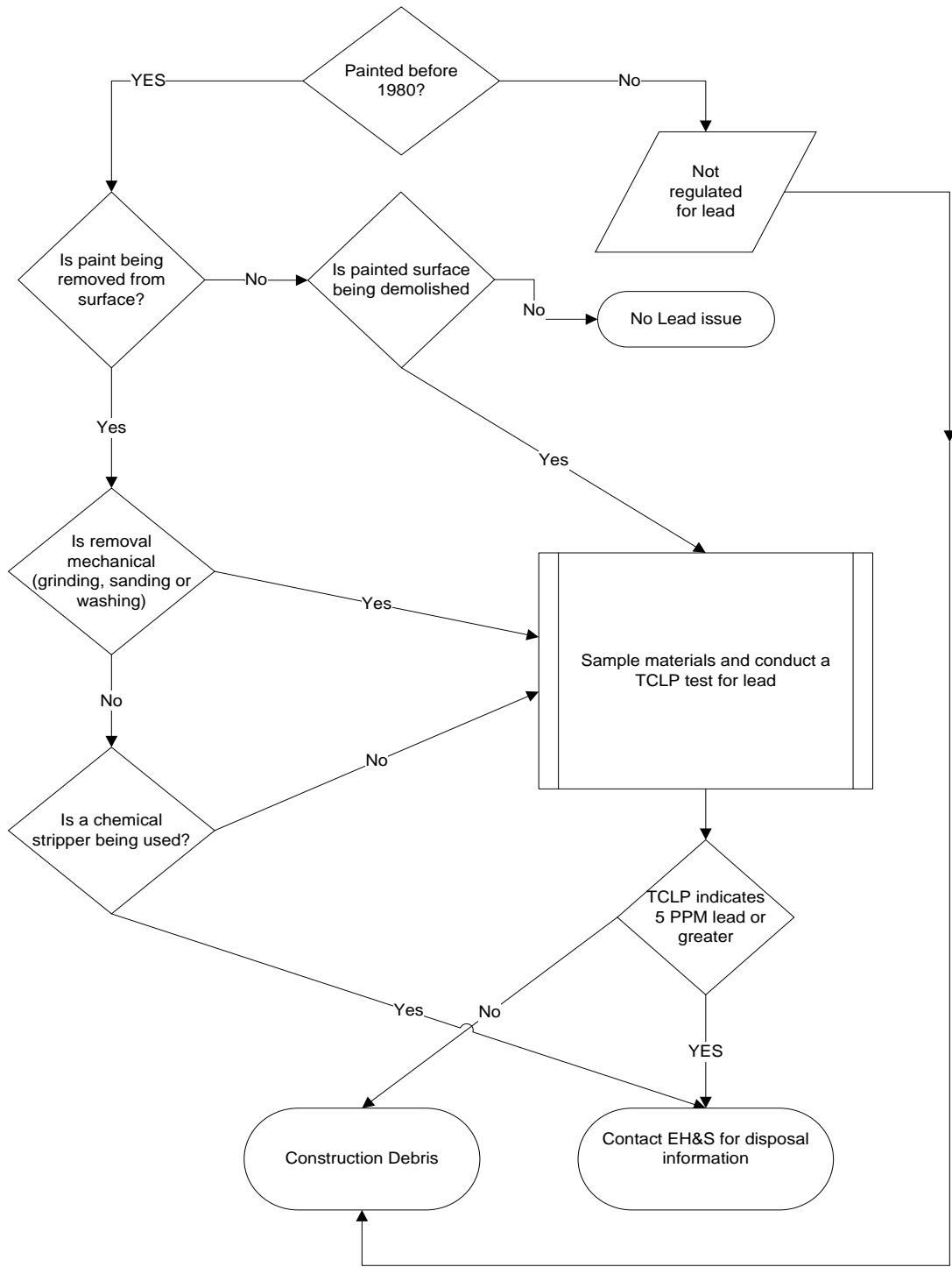
For further information on SWPPP requirements, permits, and compliance regulations, consult CPMG.

## **XXVI. DUST CONTROL**

Construction activities disturbing the soil within Maricopa County are regulated by the Maricopa County Air Quality Department. For construction projects that have a total disturbed surface area of 1/10 acre (4,356 sq. ft.) or more, service providers are required to obtain a Dust Control Permit and implement a Dust Control Plan before a building permit is issued. Areas of disturbance also include stockpiles, storage, equipment yards, and demolition. Refer to ASU University Services CPMG [Building Permit & Inspection Requirements](#) Maricopa County Dust Control Permit section for further details.

# APPENDIX A

Determine if lead paint is subject to RCRA disposal requirements



# APPENDIX B

## **The following Guidelines pertain to all construction on existing ASU buildings.**

### **Light bulbs and ballast**

**Regulatory Authority** ---- Environmental Protection Agency (EPA)

EH&S collects ALL light bulbs and ALL ballast.

All bulbs are treated as containing mercury.

Broken bulbs are considered hazardous waste and must be properly labeled and contained for pickup by EH&S.

All ballast are treated as containing PCBs.

EH&S will

- supply containers for 4' and 8' fluorescent tubes or you can use the original bulb boxes
- supply 55-gallon steel drums for light ballast
- deliver the containers to the job site
- pick up the containers when requested

Please be reasonable with your bulb and ballast drum request.

Fiber drums can hold 150-300 4-foot tubes; steel drums can hold 500 pounds of ballast.

### **Mercury Containing Thermostats**

**Regulatory Authority** ---- Environmental Protection Agency (EPA)

All mercury thermostats are considered hazardous waste and must be properly contained and labeled for pickup by EH&S.

**All construction on ASU property requires that the service provider be responsible for collection and proper disposal of the above materials.**

# APPENDIX C

## **New Fuel Burning equipment**

**Regulatory Authority** ---- Maricopa County Air Permit, Spill Prevention Controls and Countermeasures Plan (SPCC) (EPA)

Required

- Advise EH&S of the intent to install and a description of the unit
- Copy of Spec sheets to EH&S as soon as available
- Unit serial number, date of manufacture, and expected date of installation to EH&S as soon as scheduled
- Notify EH&S when installed and expected first day of startup
- Notify Facilities Management of new generators so they can schedule monthly preventive maintenance

## **Oil Containing Equipment**

**Regulatory Authority** ---- Spill Prevention Controls and Countermeasures Plan (SPCC) (EPA)

This applies to any transformer, elevator, compactor, storage tank or other stationary equipment containing any type of oil.

Required

- Notify EH&S after the installation of any oil containing equipment having a capacity of 55-gallons or greater
- Supply EH&S with a location, description of the equipment, type of oil, total oil capacity, manufacturer and unit serial number