

CALIFORNIA STATE UNIVERSITY, FRESNO
CONTRACTOR ENVIRONMENTAL HEALTH AND SAFETY
HANDBOOK

I. INTRODUCTION

California State University, Fresno recognizes that many hazards are inherent in construction and other contract work which can impact not only contractor employees, but also members of the campus community and the environment. Compliance with safety and environmental regulations is essential to eliminate and/or minimize the hazards. This document will serve as notification of campus safety and environmental health requirements to contractors, including subcontractors, who perform work at California State University, Fresno and any other facilities operated by the University. It should not be assumed that this document covers all applicable safety and environmental health laws. While onsite, contractors are required to follow applicable federal, state and local safety and environmental health regulations, as well as California State University, Fresno policies.

The contractor is responsible and accountable for the safety and actions of their employees. However, the university reserves the right to require the contractor to discontinue operations at any time it determines that the contractor's actions are exposing contractor or non-contractor individuals to an unsafe situation, or when environmental requirements/regulations are not being met.

II. EMERGENCY INFORMATION

Contractors must abide by all alarms and evacuation procedures as established by California State University, Fresno. Any alarm triggered by the contractor must be reported immediately and a representative must be available to address the incident. In the event of an emergency, the contractor should report the incident to California State University, Fresno Public Safety at 9-1-1 or 559-278-8400. If dialing 9-1-1 from a non-campus telephone, it is important that you identify your location as being at California State University, Fresno so that the campus dispatch center is properly notified.

Important Telephone Numbers:

All Emergencies	9-1-1 (278-8400 from cell phone)
Blue Emergency Phones	Press Button and Talk
Office of Environmental Health & Safety, Risk Management, and Sustainability (EHS/RMS)	559-278-7422
Facilities Planning	559-278-2424
Plant Operations Customer Service	559-278-2373

Reporting Injuries.

Injuries sustained to employees of the general contractor or its sub-contractors must be immediately reported to the California State University, Fresno Project Manager/Inspector of Record (IOR). Within 48 hours of an incident, the contractor shall furnish the Project Manager/IOR with a copy of any accident/incident report that is generated on the campus. Such reports must include a medical description of the injury (if applicable) and action taken to prevent recurrence. If a person is seriously injured, the contractor will keep the campus informed of that person's condition through the Project Manager/IOR.

Emergency Evacuations

Upon hearing any alarms or obtaining notification from university police or building emergency personnel, the contractor must stop all work. The contractor's personnel shall evacuate to a safe location away from the building, which has been pre-determined by the contractor. The contractor shall take a head count to insure that all contract personnel are accounted for. The contractor will report any individuals that cannot be accounted for to police or emergency response personnel. Contractor personnel shall remain in the area until the "ALL CLEAR" is announced and they are instructed to return to work by the university police or designee. Please familiarize yourself and your employees with the University Police Department Emergency Website at www.csufresno.edu/emergency for campus evacuation procedures and other campus emergency procedures.

III. GENERAL REQUIREMENTS**Barricades and Opening Protection**

Barricades and warnings are required around all construction sites. The best barricade is a continuous fence with signage and closed gates. It is the contractor's responsibility to prevent unauthorized individuals from entering the work area. In addition, adequate protection must be given to excavations, holes, or openings in floors or roofs, elevated platforms, and around overhead work to protect people from falling objects.

- Unless the general area is protected, barricades must be erected before any excavation and extended as the excavation progresses.
- Barricaded areas which contain an opening or hole for access must be protected during working hours and must be secured at the end of each day.
- All holes or openings through floors or decking at all elevations must be immediately covered or barricaded. Material or equipment must never be stored on an excavation cover.
- Hole covers must be secured or cleated so they cannot slip, and they must extend adequately beyond the edge of the hole.
- Barricades shall not create a trip hazard. Potential trip hazards should be clearly marked.
- The type of barricading system, whether it is fencing, caution tape or some other means must be discussed with the Project Manager/IOR to provide protection for the campus community.

Barricades and opening protection cont.

- Warning signs should be placed on barricade/fence for the duration of the construction project. Warning sign verbiage shall be coordinated through the Project Manager/IOR.

Contractor Employee Conduct

The contractor shall insure that their employees and their sub-contractor employees conduct themselves in a proper manner while on the university campus. Gestures, remarks, cat-calls, whistling, or anything of a derogatory nature will not be tolerated.

Exit Signs

Tritium gas-containing (radioactive) exit signs are not allowed for use on the California State University, Fresno campus. Contractors must use the exit signs specified as the campus standard. The contractor may use these radioactive exit signs on a temporary basis only. The signs, however, remain the property of the contractor who will be responsible for removing them from campus at the end of the project and/or paying the disposal and cleanup costs should a sign be broken.

Fire Alarms

Fire alarms must remain operational at construction sites involving occupied and non-occupied buildings. In the event that the alarm system must be deactivated for any period of time, the contractor must notify the Project Manager/IOR. The University Police Chief or his designee must authorize deactivation of the fire alarm. Approval to shut down a system will be given only with sufficient prior notice, where there is a demonstrated need, and the occupants and contents of the building are not exposed to undue risk.

A fire watch is required whenever a university fire alarm system is deactivated for any length of time. University Police are responsible for providing a fire watch service. The contractor is responsible for paying the university for the fire watch.

Housekeeping

The contractor shall keep the work area, specifically walking and working surfaces, clean and free from debris and trash which could cause slipping and tripping hazards. Tools and materials shall be kept and stored in an orderly fashion.

The contractor will take measures to protect areas adjacent to the construction area from dirt, dust, and debris. Debris shall not be allowed to accumulate within or around the work area. The worksite and surrounding area, especially stairways, corridors, and walkways, must be kept clear of obstructions, waste, and dust which may create tripping, slipping, or egress hazards.

Indoor Air Quality

Care must be taken to limit the generation of dust and odors and other air contaminants, and to control the spread of these materials outside the project work area. Control measures include the use of wet methods, avoidance of dry sweeping, controlling

Indoor air quality cont.

track out, constructing critical barriers, and the use of air filtration machines applicable to the contaminant (HEPA, carbon filtration, etc.). See the Hazardous Materials section for additional requirements regarding the use of chemicals.

Notification regarding any potential impacts to the building indoor air quality must be made to the Project Manager/IOR at least 24-hours in advance. This includes outdoor work that could impact the building interior from entrance through building HVAC system intakes. Work which involves odors, dust or other irritating environmental agents that can impact the building indoor air quality may be required to be performed during “off-hours”.

Lighting

Walkways must remain lighted for the safety of the pedestrian. When construction activity impacts the lighting of the surrounding area or walkways, the contractor must provide temporary lighting to compensate for the loss. The campus minimum requirements for illumination are five (5) foot candles for walkways/parking lots and ten (10) foot candles for building entrances.

Noise

The contractor shall endeavor to keep the work area as quiet as possible. If power activated tools, screw guns, or other such devices must be used to accomplish the work, the contractor shall notify the Project Manager/IOR and advise him/her of the type of equipment to be used and the duration of the work to be done. At times it will become necessary for the contractor to stop work immediately when advised by the Project Manager/IOR that the work is adversely affecting classrooms and or work areas.

Parking and Vehicle Traffic

Contractors shall obtain a special permit from Parking Services for access to the campus. Contractors must comply with campus parking and traffic requirements/restrictions. Fire access routes must be maintained free and clear of obstructions. Violators are subject to citation by Police & Parking Services.

The Project Manager/IOR will determine the contractor’s need for parking permits and request Parking Services to issue permits to the contractors. Contractors will be allowed a 2-hour parking time limit in the service area to unload equipment and must then relocate vehicles to a parking space for the remainder of the day. Only those contractors requiring close access to their vehicles will be granted requests.

Large vehicles and equipment with limited driver visibility to the rear must have spotters when backing.

Smoking

California State University, Fresno is a smoke-free campus except for officially posted designated outdoor smoking areas. These designated areas can be found at the following website www.csufresno.edu/smoking. Please note the campus smoking policy does not apply to fenced-in construction areas that are not visible to the general public. Smoking policies within these areas are the responsibility of the contractor.

Stairways and Corridor Egress

Stairwells, elevator lobbies and corridors are intended to provide a safe means for occupants to exit the building and emergency personnel to access the scene. The exit corridors of all areas are required to be kept clear and unblocked at all times, regardless of their width. All carts, supplies, ladders, tools, etc. must be kept out of corridors or stairways when not in use. Some projects may require construction that captures part of the corridor width. When this happens, it is extremely important that the remaining corridor(s) be clear. If an entire corridor or exit must be blocked off for a project, the contractor must immediately correct the problem under the direction of the Project Manager/IOR.

Trash, Waste and Scrap Disposal

All trash, waste and scrap must be disposed of each day in proper containers supplied by the contractor. All hazardous waste storage and disposal is to be coordinated through the EHS/RMS office. (See Environmental Requirements)

IV. GENERAL INDUSTRY AND CONSTRUCTION SAFETY

Injury and Illness Prevention Program

Contractor must comply with the applicable Injury and Illness Prevention Program (IIPP) regulatory requirements. Contractor shall be prepared to submit the written plan and any associated documentation relevant to the project, such as training records, to EHS/RMS or the Project Manager/IOR upon request. For Injury and Illness Prevention Program regulations you should refer to Title 8 of the California Code of Regulations (T8CCR) section 3203, which requires every employer who has 10 or more employees to develop and implement an effective IIPP.

Site-Specific Programs

Contractor must meet all site-specific environmental health and/or safety documentation regulatory requirements. This documentation must be submitted upon request by EHS/RMS or the Project Manager/IOR, and available at the job site for inspection/audit.

Confined Space

Contractor must notify the Project Manager/IOR and submit a copy of their Confined Space Program if work in a University confined space is planned. Contractor's Confined Space program shall comply with regulatory requirements. Contractors are responsible for providing their own monitoring equipment and rescue services/equipment necessary for safe confined space entry. Contractors must be prepared to supply copies of entry documentation upon request.

Electrical

Contractors conducting high-voltage electrical work must be approved for such work by Cal-OSHA. All work shall, at a minimum, comply with all requirements specified in California Code of Regulations (CCR), Title 8 pertaining to High Voltage, Electrical, and

specifically to Subchapter 5 (Section 2299) – Electrical Safety Orders. Contractors must also follow NFPA 70E standards for Arc Flash Safety.

Lock Out/Tag Out procedures must be observed when working with electrical equipment, including notification and coordination of the work with the Project Manager/IOR. Please refer to the Lock Out/Tag Out section of this handbook.

Electrical extension cords must be in good condition and must not create a trip hazard in hallways or on pedestrian walkways. Cords that stretch across walkways must be entirely covered, secured, elevated, or protected by other means when exposed to damage, water, or where they create tripping hazards.

Keep all electrical room doors secured when unoccupied.

Machinery or equipment must not be operated within fifteen (15) feet of electric power lines except where the electrical distribution or transmission lines have been de-energized at the point of work. All cranes, backhoes and similar lifting or excavating equipment must be effectively grounded when there is a possibility of such equipment coming into contact with an electric power line or power facility, located overhead or underground.

Excavation Safety

All excavation and trenching shall be in accordance with all applicable regulations including California Code of Regulations (CCR), Title 8 1539, Trenching and Excavation. 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 excavation area and determining the suitability of equipment or materials used for support systems, shield systems, or other protective systems. Inspection records are subject to review by the Project Manager/IOR.

Fall Protection

The contractor is to meet all applicable Cal OSHA’s fall protection program requirements according to the trigger heights listed below:

Above 30’	Iron workers: Connecting steel only. 8 CCR 1709
Above 20’	Roofers 8 CCR 1723
Above 15	Iron Workers, panelized roof construction (8 CCR 1716.1), and employees on 4 inch nominal or wider structural members.
Above 7.5’	Anyone working on unprotected platforms, scaffolds, or edge of structures. 8 CCR 1621 & 1670
Above 6’	Rod busters: Working with rebar (exception is point to point travel). 8 CCR 1709
Grade or Ground	Not required.

Lock Out/Tag Out

Contractor's Lock Out/Tag Out program shall at a minimum comply with California Code of Regulations (CCR), Title 8 requirements pertaining to Lock Out/Tag Out. Contractor must request permission through Project Manager/IOR prior to performing any shut-down and maintenance of University equipment that require Lock Out/Tag Out procedures.

Personal Protection

All required personal protective equipment (PPE) will be provided by the contractor. Its use is mandatory and enforcement is the responsibility of the contractor. Contractor's supervisor shall ensure that his employees wear appropriate clothing that would provide adequate protection from normal hazards associated with the job. Examples of PPE are head, eye, hearing, hand, respiratory and fall protection equipment. All PPE used must meet ANSI or Cal OSHA standards, and the contractor must meet all applicable training and medical monitoring requirements.

Scaffolding

All scaffolding shall be erected and maintained in compliance with applicable standards, including Cal OSHA Title 8, Chapter 4, Subchapter 4, Article 21, 22 and 23 and the manufacturer's requirements. Each scaffold must be erected and dismantled by a qualified person. Scaffolding over three stories or 36 feet in height must be permitted. Inspection of scaffolding must be made by a qualified person assigned by the contractor for the work to be performed. All scaffold platforms must be equipped with standard forty-two (42) inch high handrails and mid-rail, rigidly secured and completely decked with safety plank or manufactured scaffold decking. Rigidly secured four (4) inch high toe-boards must be used on all scaffolding. Scaffolds must be tied off to the building or structure at proper intervals.

Tools (Powered or Non-Powered)

Power tools shall be maintained in a safe working condition. Designed safety features such as guards and interlocks shall NOT be removed or defeated. Tools shall be tied off when in use above personnel.

Welding and Burning

Prior to commencing welding or burning operations, the contractor must notify the Project Manager/IOR.

The following are general requirements when performing any welding and/or burning operations:

- All exposed combustible materials below welding and burning areas must be removed to a safe location. In addition, an approved spark catcher must be used for overhead welding.
- A dry chemical (ABC) fire extinguisher (at least five-pound) must be maintained within twenty-five (25) feet of any welding, burning or open-flame work.

Welding and burning cont.

- No welding or burning is to be done on a closed vessel or tank, or any vessel previously in use unless it has been decontaminated and is certified gas-free. Permission must be obtained prior to commencing of operations.
- Adequate ventilation must be provided at all times.
- Flashback arrestors must be installed on all oxy-acetylene torches.
- All arc welding must have a separate and adequate ground, pulled from the machine to work locations in all operating areas.
- All arcs are to be shielded in operating areas by the use of such barriers as welding curtains, screens and enclosures.
- All welding near halogenated solvents is strictly prohibited.
- Approved welding eye protection or goggles must be used when welding or burning.
- An approved welding helmet must be worn for arc welding.
- 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.
- Oil and grease must be kept away from oxygen regulators, hoses and fittings. Do not store wrenches, dies, cutters or other grease-covered tools in the same compartment with oxygen equipment.
- Cylinders and hoses should be placed where they are not exposed to sparks and slag from a burning operation.

V. HAZARDOUS MATERIALS**Asbestos/Lead**

Asbestos and lead may be present in buildings where the contractor is working. Contractors must consult with the university Project Manager/IOR to determine if contracted work will involve the disturbance of asbestos and/or lead. Contractors conducting asbestos or lead abatement work must meet all eligibility and licensing requirements established by regulatory agencies.

All work shall, at a minimum, comply with all requirements specified by the Environmental Protection Agency, and California Code of Regulations (CCR), Title 8 pertaining to asbestos or lead.

Contractors shall submit a copy of their work plan to the Project Manager/IOR prior to commencing any abatement projects. The work plan shall include, at a minimum, the scope of work, all up-to-date training and medical records, all required licenses, and MSDSs of chemicals to be used for the project.

Contractor will obtain necessary permits or registrations from applicable environmental and occupational safety regulatory agencies (e.g. San Joaquin Valley Air Pollution Control District, Cal OSHA, etc.) prior to beginning any work that will require such a permit. Copies of all permits/registrations will be included in the work plan and submitted to the Project Manager/IOR in advance of such work.

Asbestos/lead cont.

All hazardous and non-hazardous waste generated from abatement projects must be properly manifested per EPA/DOT regulations and signed by a designated EHS/RMS staff member, or authorized designee.

Hazardous Materials – Chemicals

Contractors are required to comply with all applicable Cal-OSHA Hazard Communication standards. Use of any hazardous material is subject to the prior approval of EHS/RMS with notification to the Project Manager/IOR. Material Safety Data Sheets on all hazardous materials used on the project must be submitted to the Project Manager/IOR prior to the start of the project. EHS/RMS reserves the right to require substitution of materials planned for use.

Read and maintain the labels on all the hazardous materials you use and be aware of their hazardous properties. Take all appropriate precautions advised on the container labels or MSDSs. Before using odorous chemical compounds or products such as glues, epoxies, paints, thinners, advise the Project Manager/IOR. If the compound will cause problems for building occupants, you may be asked to limit or suspend work until further notice.

Hazardous materials being used for the project must be properly segregated for incompatibility and stored in secondary containment for the duration of the project. Approved chemical storage cabinets should be used and all applicable fire and local building codes shall be followed. All hazardous materials storage areas are subject to inspection by the Project Manager/IOR and DRMS.

Flammable liquids in quantities less than fifty-five (55) gallon drums are to be kept in approved “safety” cans that have been properly labeled as to their contents. Drums and tanks of fifty-five (55) gallons or more must be labeled, grounded, equipped with self-venting bungs, top-dispensing and must be placed at least twenty-five (25) feet away from smoking, welding, burning, or other heat sources.

Gas Cylinders must be securely held upright. Fasten them with an approved restraint device to rigid structures so they will not fall or be knocked over. For earthquake safety, all cylinders should be double strapped. Locate cylinders away from pedestrian traffic areas. Make sure they are in well ventilated locations, at least 20 feet from highly combustible material. Keep cylinders out of the direct sun and do not expose them to heat sources.

Access to Campus Locations where Hazardous Materials are Located. There are many hazardous chemicals, infectious agents and radioactive materials found throughout the campus, especially in the laboratories of the following buildings: Science, VERC, Enology, McLane Hall, Ag Science, Ag Graduate Lab, Theatre Scene Shop, Conley Art, Industrial Technology, East Engineering, and West Engineering. Contractors must avoid creating conditions that could cause disruption of any lab activity. Prior to entry into any laboratory space, the contractor must notify the Project Manager/IOR. The area will either be cleared or deemed safe for contractor entry.

VI. ENVIRONMENTAL REQUIREMENTS

Air Emissions

Contractors are required to maintain dust control at all work sites, including entrances and exits. Operations or procedures that will involve the release of significant quantities of dust, vapors, fumes or mist must be approved by the Project Manager/IOR prior to start of work. Examples are applications of floor, wall or roof coatings, spray applications, cement cutting, sandblasting, etc.

Environmental Permits, Registrations, and Notifications

Contractor will obtain necessary permits or registrations from applicable environmental agencies (e.g. San Joaquin Valley Air Pollution Control District, California Air Resources Board, Regional Water Quality Board, etc.) prior to beginning any work that will require such a permit. Copies of all permits/registrations will be included in the work plan and submitted to the Project Manager/IOR in advance of such work. If the contractor is installing equipment that requires an operating permit, the contractor will obtain the permit and provide copies to the Project Manager/IOR.

Hazardous Material Spills

The contractor must report any spills immediately to the Project Manager/IOR and EHS/RMS and take immediate action to contain the spill as is appropriate and safe. Regulatory agencies require containment and remediation of all spills of hazardous materials, including fuels and oil. Contractors who spill any such substances on university property are responsible for clean-up coordinated through EHS/RMS. Clean-up of the contaminated area must be performed to the regulatory accepted level based on testing. Testing and disposal will be coordinated through EHS/RMS and paid for by the contractor.

Hazardous Waste

Contractor shall comply with all federal, state and local regulations pertaining to the management of hazardous waste as well as university requirements. Hazardous waste must be handled and accumulated on site in a safe manner and by properly trained contractor personnel.

- Fluorescent lamps are to be removed from fixtures with care and placed in special cartons, and disposed of in accordance with regulatory requirements. Do not dispose of lamps in regular trash containers.
- Hazardous waste generated on-site will be transported and disposed of in accordance with all applicable Federal, State, and local regulations.
- All hazardous and non-hazardous waste generated from abatement projects must be properly manifested per EPA/DOT regulations and signed by a designated EHS/RMS staff member or EHS/RMS-approved designee.
- Contractors are required to furnish the Project Manager/IOR with documentation of proper disposal whenever the contract calls for disposal of hazardous waste, including spills.

Storm Drains/Sanitary Sewer

No hazardous, toxic liquid or solid material(s) shall be discharged to the storm drain, ponds, streams and/or sanitary sewer system. Contractor performing planned work that will create potential runoffs such as water blasting, wet method surface removal, etc, must ensure proper protection of drainage system and adequate product collection procedures.

Care must be taken to locate chemical storage and transfer areas to prevent the possibility of accidental spillage of chemical products.

Any spills or accidental discharges to storm drains, ponds, streams or sewage systems must be reported immediately to campus police and EHS/RMS. Failure to make the proper notification could result in EPA fines which will be the responsibility of the contractor.

Storm Water Pollution Prevention

Contractor is required to meet all Storm Water Pollution Prevention requirements, which include development and on-going maintenance of a Storm Water Pollution Prevention Plan (SWWPPP), submission of appropriate notifications (Notice of Intent and Notice of Termination) to the Regional Water Quality Board, obtaining a permit to proceed, inspecting and maintaining Best Management Practices (BMPs), and maintaining required documentation. These requirements apply when the aggregate total of land disturbed or affected by the overall project meets or exceeds one acre. Copies of the permit, forms and guidance are available for download from the State Board Web site at www.swrcb.ca.gov.stormwtr/construction.htm Check the web site regularly for updates.

Water System

Prior approval by the Facilities Management Water Specialist or his designee is required for any connection to the existing water system (includes connections to campus fire hydrants). Failure to obtain permission could result in job shutdowns and delays. Facilities Management reserves the right to revoke permission at any time.

Fire Hydrant Operation Procedures

- A. Only an approved fire hydrant wrench is to be used for opening/operating a fire hydrant. Damages resulting from the failure to use proper tools will be the responsibility of the contractor.
- B. At no time is an assembly to be left attached to a hydrant when the hydrant is not actually furnishing water.
- C. At no time is the hydrant to be left without the cap replaced and snugly tightened.
- D. Remove hydrant nozzle cap, and attach backflow device and hose.
- E. Open hydrant slowly. It should take more than 60 seconds to fully open to prevent surging on the water system. Open completely to shut off drip drain while hydrant is in use. If you expect frequent open and closure, or throttling, install and use a valve on the hose.

Campus water system cont.

- F. In no instance should the discharge end of the hose be inserted into a tank or container under water or laid on the ground to make and lay in its own pool of water. There must be, at all times, an air gap between the end of the water hose and the container and/or the water level at the end of the hose.
- G. Upon filling the tank, container, or otherwise having drawn sufficient water for immediate need, close hydrant valve.
- H. Remove backflow device and hose.
- I. Replace nozzle cap.

VII. ADDITIONAL REQUIREMENT

Environmental Health and Safety Compliance Certification

The General Contractor shall complete, sign and submit the Environmental Health and Safety Handbook certification form.

CALIFORNIA STATE UNIVERSITY, FRESNO
CONTRACTOR ENVIRONMENTAL HEALTH AND SAFETY HANDBOOK
CERTIFICATION FORM
FOR GENERAL CONTRACTORS

Project Name: _____ **Project Number** _____

Project Location: _____

General Contractor: _____

Address: _____

Contact person: _____ Telephone number: _____

Brief description of project: _____

Instructions to the General Contractor

As the general contractor on this project you are responsible for completing this certification. The completed certification package (includes all applicable submittals) must be received by the Office of Facilities Management prior to any construction work being allowed to begin even though the *Notice to Proceed* may have already been issued.

I certify on behalf of _____ that this certification is complete
(Name of general contractor)

and that the contractor has read and agrees to abide by all the requirements as stated in the Contractor Safety Handbook. I further certify that all subcontractors have been notified of the requirements as well.

_____ agrees to exercise due diligence in facilitating the
(Name of general contractor)

correction of serious safety hazards and/or non-compliance practices brought to our attention.

Print Name

Signature

Title

Date