



America's Ride to Space

DOC 352

CONTRACTOR SAFETY, HEALTH AND ENVIRONMENT REQUIREMENTS

Contractor must comply with this document, as well as comply with all applicable Federal, State, and local environment, safety & health laws, rules, standards, and regulations, when Work under this Contract will be performed on ULA facilities and the Contractor will be performing Work involving construction, renovation, repair, maintenance, custodial work, environmental remediation, work with hazardous chemicals, long-term support services, telecommunication infrastructure installation and/or repair, and work in potentially hazardous locations.

DEFINITIONS

SHEA: ULA Safety, Health, and Environmental Affairs function.

Health and Safety Plan (HASP): A job-specific health and safety plan, detailing the specifics of the job related to ensuring the safety of personnel and equipment.

ULA Contact: A ULA employee expressly designated as the ULA Contact, or if no such designation is made, the employee in charge of a project.

1) ACCOMMODATIONS

CONTRACTOR shall identify and resolve any and all personnel issues due to disabilities, language, or literacy constraints that require special instruction.

2) PERSONNEL LIFTING EQUIPMENT

CONTRACTOR must follow the manufacturer's operator manual when operating manually or self-propelled personnel lifting equipment (e.g., scissor lifts, boom lifts, etc.).

- a) Operators must be trained and authorized to operate the equipment.
- b) Fall protection must be worn when using aerial lifts at ULA Sites in accordance with all applicable Federal, State and Local safety requirements.
- c) Only battery or electrical powered vehicles may be used indoors unless prior approval has been obtained from the ULA Site SHEA representative.

3) AIR EMISSIONS

Activities that generate air emissions (e.g., gases, solid particles (dust, smoke, and fumes), liquid droplets, and excessive odors must be reviewed and authorized by ULA Site SHEA representative. CONTRACTOR shall fully comply with all laws, regulations, permit restrictions, and procedures applicable to such emissions. Notable requirements include, but are not limited to, the following:

Combustion Engines:

Gasoline, diesel, liquefied petroleum (LP) gas powered internal combustion engines shall not be used inside ULA buildings without prior approval from ULA.

Refrigeration:

All industrial process refrigeration maintenance and leak repairs for air conditioning units containing greater than 50 pounds of refrigerant shall be in compliance with Section 608 of the Clean Air Act.

Volatile Organic Compound (VOC)/Reactive Organic Compound (ROC) Limit Compliance:

CONTRACTOR shall not use chemicals that exceed any federal, state, or local VOC/ROC limits for operations including, but not limited to, painting, solvent cleaning, wipe down, using adhesive and sealants.

Emission Logs:

Follow site-specific requirements concerning chemical usage, fuel usage, and emission logging procedures provided by ULA Site SHEA representative.

Fugitive Dust Control:

Dust caused by soil excavation, roadway construction, hauling on unpaved roads, and other dust-producing activities shall

be controlled by the CONTRACTOR using covers, water spray, or other ULA Site SHEA representative approved practices. No oils may be used on ULA owned or leased properties to control fugitive dust.

Visible Emissions (Opacity):

A visible emission is any atmospheric discharge which causes an obscuring of the background or sky. CONTRACTOR equipment and operations shall not exceed the local, state, and federal maximum limits.

Open Burning:

Under no circumstances shall the CONTRACTOR burn any materials, except as a routine consequence of welding or cutting operations or when applying flame-activated coatings.

Odors:

CONTRACTOR shall not cause malodorous emissions.

4) ASBESTOS AND LEAD

Any CONTRACTOR or its subcontractor activity that may disturb and/or come in contact with any asbestos/lead material and/or bring or introduce asbestos-containing material or lead on site shall not commence work until after CONTRACTOR has received approval from ULA Site SHEA representative to conduct the activity. A job-specific HASP is required to be submitted for ULA Site SHEA representative review prior to any asbestos/lead activities.

5) ASSESSMENT AND REPORTING

CONTRACTOR shall employ a competent supervisor and necessary assistants who shall be in attendance at the project site until completion of the project.

CONTRACTOR shall have a designated representative(s) for each job site who shall assess the job site, verify compliance with safety standards, and assist its subcontractor personnel with all safety related matters. CONTRACTOR will perform periodic safety meetings/toolbox talks with its crewmembers based on the duration and scope of the project. The subject matter is up to the CONTRACTOR and, at a minimum, shall include the site-specific emergency procedures. Outlines of safety meetings/tool box talks, including attendance rosters, shall be submitted to ULA upon request.

6) BARRICADES

Hazardous areas such as floor, wall, roof, and road openings shall be sufficiently protected by barricades, guards, signs, and signals to adequately warn personnel of the hazards. CONTRACTOR must barricade work areas as required to prevent all unauthorized personnel from walking into the area. Barricades can be barrier tape; "A" frame barricades, rope and/or stanchions; and shall be complete, rigid, and strong enough to withstand the loads or conditions they may face. For activities at Production Operations sites, barricades must be accompanied by a standard barricade sign. Contact ULA Site SHEA representative office for guidance.

Overhead work conducted in aisles where objects could fall and possibly strike personnel walking by shall have safeguards such as overhead protective barriers (e.g., netting and hard barriers), detour routes, administrative controls (e.g., working off-shifts), or other agreed upon means to protect personnel (i.e., tethering/drop mitigation, etc.).

7) COMPLIANCE WITH PROCEDURES AND REGULATIONS

CONTRACTOR is responsible for worksite control. All CONTRACTOR and subcontractor personnel shall at all times comply with all applicable environmental, safety and health laws and regulations; posted warnings and instructions; permit and other requirements pertaining to ULA property and operations. ULA reserves the right to review associated documentation that demonstrates the CONTRACTOR's compliance with these requirements.

****ATTENTION** CONTRACTOR shall additionally adhere to Cal/OSHA requirements when working south of Honda Ridge Road (i.e., SLC-6, HIF, Wharf and surrounding areas) at VAFB.**

8) CONFINED SPACE

CONTRACTOR and its subcontractor personnel shall notify the ULA point of contact prior to performing any work in confined spaces. Any such work may be performed only after issuance of the CONTRACTOR's "Confined Space Entry Permit" and, upon conclusion of the confined space operations, the CONTRACTOR shall submit a copy of the completed/cancelled permit to SHEA. All personnel associated with confined space work shall be trained to perform their duties as required by applicable regulatory requirements. Inform SHEA of any hazards or anomalies confronted or created in permit spaces during entry operations. CONTRACTOR is required to provide its own sampling/monitoring, rescue, and equipment, etc, unless otherwise provided by contractual agreement.

9) CRANES, HOISTING, AND LIFTING OPERATIONS

CONTRACTOR shall coordinate crane use and/or operations within existing ULA crane envelopes prior to commencement of work. Mobile cranes brought onto ULA premises by the CONTRACTOR shall meet applicable OSHA and industry

standards with records of compliance (e.g., inspection records, proof load data) shall be provided to ULA upon request.

ULA, in its sole discretion, may require CONTRACTOR to provide a written Lift Plan for crane, hoisting, or lifting activity.

The requirement to provide a Lift Plan (including descriptions of information to be included in the plan) will be communicated through contract scope documentation. When required by contract documentation, and to facilitate common understanding amongst ULA and CONTRACTOR's lifting team for a safe lift operation, CONTRACTOR shall provide a written Lift Plan to the ULA Procurement Representative no less than three (3) days prior to the planned activity.

The CONTRACTOR lifting supervisor shall stop the lifting operation immediately if it deviates from the ULA-reviewed Lift Plan. Changes to the Lift Plan shall be coordinated with ULA.

CONTRACTOR is responsible for the proper use of hoist and rigging equipment and associated attachments (e.g., slings, hooks, and chains), in accordance with the manufacturer's specifications and limitations. Hoist and rigging equipment and associated attachments must have the required manufacturer's label that includes its rated working load capacity.

10) DRUG FREE WORK PLACE

If a CONTRACTOR or subcontractor employee exhibits behavior or is involved in any situation that would indicate impairment due to drugs or alcohol, the CONTRACTOR shall take immediate action to test the non-employee immediately, and shall not allow the non-employee back on premises until ULA is satisfied the situation has been addressed. The CONTRACTOR shall take such measures based on its own information or observations or in the event it obtains such information from ULA.

11) ELECTRICAL SAFETY

CONTRACTOR shall employ appropriate safety-related work practices defined in Federal and State OSHA rules as well as NFPA 70E for work that exposes personnel to electrical hazards such as shock, electrocution, or thermal hazards associated with arc flash. CONTRACTOR shall ensure that employees are instructed in the safe work practices necessary for the performance of their work tasks as well as emergency procedures appropriate for work being performed. Personal protective equipment (PPE) and portable electrical equipment including hand tools, test instruments/equipment, flexible cords, etc. shall be provided by the CONTRACTOR for its personnel, inspected prior to use and maintained in good condition throughout the duration of tasks being performed. CONTRACTOR shall supply ground fault circuit interrupters (GFCIs) for all temporary electrical wiring cords and portable equipment and tools.

Unless otherwise coordinated with ULA, CONTRACTOR shall ensure that energized electrical conductors and circuit parts to which personnel might be exposed (i.e., within limited approach boundary or interacting with equipment such that an increased risk of injury from exposure to an arc flash hazard exists) shall be put into an electrically safe work condition prior to performing work. Energized work shall only be authorized when (i) de-energizing introduces additional hazards or increased risk, (ii) the work is infeasible in a de-energized state, or (iii) the circuit operates at less than 50 volts. Work subject to items (i), (ii) and (iii) may only be performed under a written CONTRACTOR's Energized Electrical Work Permit that addresses required elements defined in NFPA 70E.

CONTRACTOR shall advise ULA of any unique hazards presented by work tasks to be performed and shall communicate to ULA any unanticipated hazards encountered during performance of work not communicated to CONTRACTOR in work-authorizing documents or in other coordination with ULA. When notified by ULA of issues concerning compliance with electrical safe work practices, CONTRACTOR shall communicate measures taken to correct the issues and to prevent recurrence.

12) EMERGENCY REPORTING

All emergencies (i.e., medical, fire, spill or release of any hazardous material) must be reported through the site emergency procedure and to SHEA. CONTRACTOR shall ensure the appropriate communication equipment is readily available to promptly report emergencies.

13) EQUIPMENT

All equipment and tools must be supplied by the CONTRACTOR and/or its subcontractors, and shall be maintained in a safe operating condition, free from defects or wear which may constitute hazard to any person or property. All electrical tools must be grounded or double insulated. CONTRACTOR shall provide documentation indicating calibration/maintenance of equipment to ULA upon request. The CONTRACTOR and its subcontractors are not permitted to use ULA owned/leased equipment/tools unless specifically permitted in the Contract.

14) EXCAVATION AND SOIL DISTURBANCES

CONTRACTOR and its subcontractor personnel are prohibited from performing any excavation work until:

- a) CONTRACTOR designates in writing to the ULA Contact a Competent Person (as defined by OSHA) who must be present and supervise excavation work.

- b) Utility companies and the ULA Contact have been given advance notification of the work and underground installations (e.g., utilities, operational piping, etc.) have been properly located (marked) and protected.

When excavation occurs in areas covered by a Construction or Industrial Stormwater Permit, CONTRACTOR shall comply with the existing site Stormwater Pollution Prevention Plan (SWPPP). CONTRACTOR may be required to prepare, implement, and maintain an independent SWPPP that incorporates erosion and sedimentation control methods to protect the surrounding areas from construction activities and retain sediment on-site.

15) EXPLOSIVE/ORDNANCE USAGE

CONTRACTOR shall coordinate with SHEA, Engineering, and Security management prior to the introduction and/or use of explosives or ordnance devices (defined by DOT and BATF regulations) on ULA properties. A detailed HASP shall be prepared by the CONTRACTOR to cover such activity and CONTRACTOR shall comply with all applicable DOT and ATF regulatory and licensing requirements.

16) FALL PROTECTION

CONTRACTOR and its subcontractor personnel are required to utilize fall protection systems when exposed to fall hazards of six feet (construction) or four feet (general industry) or more in elevation. Fall protection systems include, but are not limited to, guardrails, full body harness with lifeline, safety nets, etc.

17) FIRE PROTECTION EQUIPMENT

Any use or impairment of fire protection equipment is to be done only with the coordination and advance approval of ULA. CONTRACTOR must provide adequate fire protection for their work activities and areas as required by applicable codes and regulations.

18) FLAMMABLE AND COMBUSTIBLE MATERIALS

Every effort shall be made to use the safest product with the lowest flammability range. The CONTRACTOR shall ensure safe storage and use of flammable and combustible materials. These areas shall be in compliance with all applicable codes.

19) HAZARD ASSESSMENTS AND MITIGATION

CONTRACTOR shall continually assess the work site to identify potential hazards and mitigate these hazards. The CONTRACTOR must immediately stop work and safe the work site if an imminent hazard is encountered. In addition, CONTRACTOR shall inform SHEA and other potentially affected personnel of any hazards confronted or created during operations and abate work place hazards created by their activity or under their control.

20) HAZARD COMMUNICATION

CONTRACTOR is responsible for assuring the safe handling and use of all chemicals brought on ULA premises or work sites by its employees or its subcontractors. CONTRACTOR is also responsible for ensuring that (Material) Safety Data Sheets (MSDS/SDS) are readily available on site for all chemicals brought onto ULA premises or work sites. Copies of (M)SDS and sheets shall be provided upon request for any chemicals to be used and/or stored on ULA premises or work sites. ULA reserves the right to prohibit or limit the use of any chemical. For activities at Production Operations sites, all SDSs must be submitted to site SHEA office for review and approval before work begins.

CONTRACTOR shall immediately report any unauthorized spill or releases of any substances to SHEA. CONTRACTOR shall be responsible for the containment and clean up of any spills/releases that are within the training and capabilities of their personnel. Note: spills/releases of substances may require waste management and disposal which shall be coordinated with SHEA.

21) HAZARDOUS MATERIALS NOTIFICATION AND STORAGE

CONTRACTOR shall be responsible for notifying its employees and subcontractors of all the requirements related to potential hazards such as asbestos, lead, or hazardous materials that may be encountered in the project.

CONTRACTOR shall coordinate with SHEA to determine the location and type of hazardous materials storage area(s) to be located in ULA work areas and maintain such areas in compliance with applicable OSHA, Cal-OSHA, NFPA, Air Quality, and RCRA (hazardous waste) requirements.

22) HEALTH & SAFETY PLAN (HASP)

In some instances, a job HASP shall be required. Examples of jobs that would require a job specific HASP would include, but are not limited to, asbestos abatement, environmental remediation, electrical work on equipment, circuits, cabinets, racks, panelboards, or systems in excess of 50 VAC or 100 VDC and ordnance use. The CONTRACTOR shall be informed through the scope of work when a HASP is required. Asbestos work and electrical work on equipment, circuits, cabinets, racks, panel boards, or systems in excess of 50 VAC or 100 VDC shall always require a HASP. When a HASP is required, CONTRACTOR shall forward a copy to the SHEA representative for review prior to starting work. A HASP shall provide the following:

- An outline of the safety and health hazards of each project;
- A description of how the hazards will be addressed through written work instructions, processes and procedures;
- Specific training requirements for the project and a listing of personnel required to be so trained;
- Certification of training for those employees who have received applicable training and medical surveillance;
- Copies of certificates of insurance;
- Copies of any relevant licenses, permits, and calibration of equipment;
- Emergency response plans and telephone numbers; and
- The methods for assuring the CONTRACTOR and its subcontractors' compliance with regulatory requirements.

23) HOT WORK

CONTRACTOR and its subcontractor personnel are prohibited from performing any hot work (work involving electric or gas welding, cutting, brazing, or similar flame or spark-producing operations) without first obtaining a "Hot Work Permit" per Site-defined processes. Such personnel must follow health and safety requirements including those outlined on the hot work permit. Personnel performing the hot work must provide a fire watch, trained in extinguisher use, with an appropriate fire extinguisher to monitor the hot work area. After completion of the hot work, the permit shall be signed off by the CONTRACTOR and returned to the permit issuer.

24) HOUSEKEEPING

Good housekeeping shall be maintained at all times. Debris and waste are not to accumulate and must be removed as required from the work site. At the end of each shift, areas shall be left in an orderly manner. CONTRACTOR shall remove and dispose of all waste materials as directed by SHEA. Enclosed non-combustible disposal chutes are required whenever solid waste materials are dropped greater than ten feet or are adjacent to established walkways.

The work area shall be kept clean and free of loose tools, boards, wood tailings, metal scraps, and other debris. Electrical panels, emergency equipment, means of egress, aisles, and passageways shall not be blocked. Hoses and extension cords shall be bridged as appropriate and shall be removed and coiled at the end of the task. Sharp objects, such as nails, which protrude from packing materials, equipment, or other construction debris shall be removed or bent to remove the hazard. Lumber and bagged materials shall be stored to prevent them from falling or protruding into aisles and walkways.

Materials may not be stored on scaffolds, runways, loading docks, or roofs in excess of amounts needed for immediate use. Storage within stairwells or elevators is not permitted.

25) INCIDENT & INJURY REPORTING

In addition to any OSHA reporting obligations applicable to the CONTRACTOR, CONTRACTOR shall report all occupational injuries, illnesses, and incidents involving the CONTRACTOR and/or its subcontractor personnel, equipment, or operations immediately to SHEA. CONTRACTOR shall also supply an incident report to SHEA within 24 hours or the next business day.

26) INDOOR AIR QUALITY

CONTRACTOR shall, during demolition and renovation activities, control techniques shall be used (i.e., vacuum cleaning instead of sweeping, separation of work area from occupied space using plastic barriers, etc.) to minimize emission/spread of dust and or other contaminants into occupied spaces. SHEA may require additional controls specific to the nature of the work. Construction materials shall be transported and stored in such a manner so as to protect them from contamination.

27) LOCKOUT/TAGOUT

CONTRACTOR is responsible for assuring that all CONTRACTOR and subcontractor personnel follow relevant lockout/tagout (LOTO) requirements during any work on energized equipment or systems. These energy systems may include, but are not limited to, electrical, hydraulic, thermal, pneumatic, gravitational, mechanical, and chemical systems. CONTRACTOR and its subcontractors shall follow the ULA LOTO program and assure that its personnel understand and comply with the restrictions and prohibitions of the energy control program. ULA requires that all LOTO tags contain contact information such as CONTRACTOR name, phone number, and name of person applying the lockout/tagout.

28) PAINT/COATINGS DISTURBANCE

Prior to initiating operations involving sanding, pressure washing, burning, cutting, drilling, abrasive blasting or welding on coated or painted structures or equipment, CONTRACTOR shall contact SHEA to obtain information that may allow CONTRACTOR to determine any potential hazards, (e.g., asbestos, lead, cadmium, and zinc). CONTRACTOR shall assess and control any work activities where personnel may be occupationally exposed to these materials and must follow the applicable standards that address the hazard and ensure worker protection.

29) PERMITS AND APPROVALS

CONTRACTOR is responsible for complying with all required federal, state, local, and/or contractual permits, licenses, approvals, and ensuring no impacts to or interference with ULA permits and procedures before commencing any

project for ULA. CONTRACTOR responsibility for obtaining permits shall be defined in the detailed statement of work. CONTRACTOR permits, licenses, and approvals shall be posted, or made available for inspection by ULA.

30) PERSONAL PROTECTIVE EQUIPMENT (PPE)

CONTRACTOR shall provide and assure that all CONTRACTOR and its subcontractor personnel are equipped with the proper PPE (e.g., safety glasses, hard hats, hearing protection, respirators, safety shoes, fall protection, electrical, etc.) and trained in their proper use. As necessary, CONTRACTOR shall post the job site entry points with signs defining the PPE required by personnel entering the job site.

31) POWDER-ACTUATED TOOLS

CONTRACTOR shall coordinate the use of powder-actuated tools prior to use. Only trained personnel shall be allowed to operate a powder-actuated tool.

32) POWERED INDUSTRIAL TRUCK

The following equipment is considered a powered industrial truck and must follow all applicable regulations: any mobile power-propelled truck used to carry, push, pull, lift, and stack or tier materials. Only qualified and trained operators shall be allowed to operate powered industrial vehicles. In addition, ULA may request CONTRACTOR to provide inspection documentation regarding its equipment to verify compliance with regulations. Gasoline, diesel, liquefied petroleum (LP) gas powered internal combustion engines shall not be used inside ULA buildings without prior approval from ULA.

33) PROCESS SAFETY MANAGEMENT

CONTRACTOR may be required to work on or adjacent to ULA processes covered by the OSHA Process Safety Management (PSM) standard. CONTRACTOR shall assure that each CONTRACTOR employee working in such areas has been instructed in the potential fire, explosion, or toxic release hazards related to the CONTRACTOR's work and the covered process as well as work practices necessary to safely perform his/her job. In addition, CONTRACTOR shall instruct its employees in required actions to be taken in the event of an emergency. Such training shall be documented by the CONTRACTOR as required by the PSM standard with records made available to ULA upon request. CONTRACTOR shall advise ULA of any unique hazards presented by CONTRACTOR's work, or of any hazards found by CONTRACTOR's work.

34) RADIATION

CONTRACTOR shall notify ULA of intended use of ionizing radiation source or generator, such as x-ray machines, radiation sources, density gauges, etc.

35) SCAFFOLDS

Only experienced and trained employees selected for such work by the Competent Person shall perform such activities requiring scaffolds in compliance with all applicable regulations.

36) SITE SPECIFIC CONTRACTOR SAFETY, HEALTH AND ENVIRONMENTAL ORIENTATION

CONTRACTOR and its subcontractor employees shall receive an orientation on relevant site-specific safety, health, and environmental requirements. The level of orientation shall be determined by the project's scope of work and scheduled through the ULA Contact. Orientation is to assist the CONTRACTOR and its subcontractor employees in site familiarization to include site specific emergency procedures and hazards.

37) SMOKING/TOBACCO USE

Smoking of any kind (including the use of electronic/vapor cigarette devices) and any other tobacco use is permitted only in designated areas.

38) TRAFFIC REQUIREMENTS

CONTRACTOR must follow all traffic regulations, postings, signs and designated parking areas. The ULA Contact shall coordinate construction vehicle parking.

39) TRAINING

CONTRACTOR assumes full responsibility for assuring that all CONTRACTOR and its subcontractor personnel working on ULA premises and work sites receive all training required for the project or task prior to conducting that project or task. All training and medical certifications shall be current. ULA is not responsible for training or supervising CONTRACTOR or its subcontractor employees. CONTRACTOR training records shall be available for inspection by ULA upon request.

40) UTILITY SHUTDOWN

CONTRACTOR shall not arrange for or conduct any utility shutdown except with the advance coordination and approval of ULA.

41) VEHICLE OPERATION

CONTRACTOR vehicles must be in good repair and roadworthy. Vehicles that have limited visibility must be equipped with back-up alarms or a flag person/spotter must accompany the vehicle when backing to clear the way. CONTRACTOR shall provide for immediate clean up (at time of occurrence) of any fluids (water, lubricants, condensates, etc) and/or dirt/debris tracked into ULA buildings by any vehicle or towable item.

42) WASTE/RECYCLABLES (INCLUDING C&D MATERIALS) GENERATED BY CONTRACTOR

CONTRACTOR shall make arrangements with SHEA for the characterization, handling, storage and disposal/recycling of all waste/recyclable materials (including construction and demolition (C&D) materials) generated by the project.

CONTRACTOR shall notify SHEA prior to generating hazardous waste. CONTRACTOR shall request from SHEA the appropriate ULA marked hazardous waste containers to properly store the hazardous waste in a location designated by ULA. CONTRACTOR shall not remove any ULA hazardous waste containers off any ULA site. All disposition of such waste will be performed by ULA.

43) WASTEWATER, STORMWATER AND POTABLE WATER SUPPLY PROTECTION

All potential discharges shall be reviewed and authorized in advance by SHEA to ensure compliance with water quality requirements and permits. Wastes, waste water, or chemical substances shall not be discharged to surface water or into any storm or sanitary sewer system, or be disposed of on any outside grounds without prior authorization. No equipment or work shall be performed outside which could lead to potential contamination of surface water or storm water (e.g., washing of equipment outside, or soil disturbances) without adequate protection or authorization. No equipment shall be connected to the domestic water supply (e.g., hoses, water trucks) without using an approved backflow prevention device.