

Integration of Environment, Safety, and Health Service Subcontract Specifications for Moderate/High Risk Subcontracts

All work must be performed in accordance with the U.S. Department of Energy Acquisition Regulation (Integrated Safety Management DEAR 970.5223-1 clause), 10 CFR 851, and all applicable federal regulations and site-specific requirements.

The Subcontractor shall take all reasonable precautions in the performance of the work under this contract to protect the environment, safety, and health of employees and members of the public. The Company shall notify the Subcontractor, in writing, of any noncompliance with the provisions of this Clause. After receipt of such notice, the Subcontractor shall immediately take corrective action. In the event that the Subcontractor fails to comply with said regulations and requirements, The company, may, without prejudice to any other legal or contractual rights of The Company, issue an order stopping all or any part of the work; thereafter, a start order for resumption of the work may be issued at the discretion of The Company. The Subcontractor shall make no claim for an extension of time or for compensation or damages by reason of, or connection with, such work stoppage.

For the purposes of DEAR 970.5223-1 Clause,

1. Safety encompasses environment, safety, and health, including pollution prevention and waste minimization.
2. Employees include subcontractor and lower-tier subcontractor employees.

Suspect/Counterfeit Materials and Equipment. The Subcontractor will comply with all requirements established in the contract terms and conditions related to restrictions and controls of suspect and counterfeit materials and equipment.

In performing work under this Subcontract, the Subcontractor shall perform work safely, in a manner that ensures adequate protection for employees, the public, and the environment, and shall be accountable for the safe performance of work. The Subcontractor shall exercise a degree of care commensurate with the work and the associated hazards. The Subcontractor shall ensure that management of environment, safety, and health functions and activities becomes an integral, but visible, part of the Subcontractor's work planning and execution processes.

A. Management Commitment and Employee Involvement

Line management is responsible for the protection of employees, the public, and the environment. Line management includes subcontractor and lower-tier subcontractor employees managing or supervising employees performing work.

1. Line Management shall hold personnel accountable for meeting responsibilities.
2. Clear and unambiguous lines of authority and responsibility for ensuring ES&H are established and maintained at all organizational levels.
3. Line Management shall assign responsibilities so those members of the organization know what performance is expected of them.
4. Line Management shall provide adequate authority and resources so that responsibilities can be met.
5. Line Management shall ensure personnel possess the experience, knowledge, skills, and abilities that are necessary to discharge their responsibilities.
6. Line Management shall ensure employee understands the hazards and how to prevent exposure to such hazards.
7. Line Management shall ensure supervisory responsibilities include reinforcing employee training through feedback and enforcement.
8. Line Management shall have a new-hire orientation program.

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9. Line Management shall ensure resources are effectively allocated to address ES&H, programmatic, and operational considerations. Protecting employees, the public, and the environment is a priority whenever activities are planned and performed.
10. Line Management shall designate a Project Safety and Health Representative and an alternate representative and include qualifications and duties. (This designation shall be inserted in the front of The Company's ES&H plan.)

B. Hazard Prevention and Control

1. Before work is performed, the associated hazards must be evaluated, and an agreed-upon set of ES&H standards and requirements must be established which, if properly implemented, provide adequate assurance that employees, the public, and the environment are protected from adverse consequences.
2. A site-specific safety and health plan shall be submitted where required, per 29 CFR 1910.120, *Hazardous Waste Operations and Emergency Response*.
3. Written, properly authorized, current permits (e.g., confined space, environmental) are required before work begins. The Company shall provide the permits unless ES&H approves –the Subcontractor program. Permits provide details on the type of activity to be performed and the safety requirements necessary to perform the job. Permits shall be at the workplace and readily available for review and instructions must be followed.
4. Lockout/Tagout of hazardous energy sources (e.g., electrical hydraulic etc.) is to be implemented by The Company.
5. Supervisory responsibilities shall include analyzing the work to identify hazards and implementing appropriate controls.
6. Engineering and administrative controls shall be incorporated to prevent and mitigate hazards and tailored to the work being performed and the associated hazards. Emphasis should be on designing the work and/or controls to reduce or eliminate the hazards and to prevent accidents.
7. Releases and exposures shall be eliminated, mitigated, or otherwise controlled.
8. Line Management shall ensure that current and potential statement of work (SOW) hazards are analyzed, identified, corrected and/or controlled as work progresses:
 - (a) first through elimination or substitution of the hazards where feasible and appropriate;
 - (b) then through engineering controls where feasible and appropriate;
 - (c) next through safe work procedures and administrative controls that are understood, followed, and reinforced where feasible and appropriate; and
 - (d) finally, by use of personal protective equipment (PPE).
9. Line Management shall ensure that all equipment is maintained per manufacturer's instructions or per an established technical basis.
10. The conditions/requirements for operations must be established and agreed upon by The Company and the Subcontractor. These agreed-upon subcontract conditions /requirements are binding upon the Subcontractor. The extent of documentation and level of authority shall be tailored to the complexity and hazards associated with the work.
11. Upon request, the Subcontractor shall complete and submit a Major Equipment Declaration that reflects maintenance, operation, and inspection of their heavy equipment.
12. **Hazard Communication Program—All chemicals brought on site shall be labeled in accordance with 29 CFR 1910.1200, *Hazard Communication*. The Subcontractor shall provide to The Company Subcontract Technical Representative (STR) copies of the safety data sheets prior to bringing chemicals on-site. The STR, must forward copies of safety data sheet to the Hazardous Material**

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Inventory System (HMIS) Coordinator prior to the Subcontractor bringing chemicals on-site. All chemicals stored on-site shall follow National Fire Protection Association (NFPA) storage guidelines.

In addition, per 40 CFR 370.20, *Emergency Planning and Community Right to Know Act*, on a monthly basis, the Subcontractor shall provide to the STR the completed inventory form (UCN-21445, *Subcontractor Hazardous Materials Inventory Report*, for Y-12 and PX-5905, *Monthly Chemical Agents Inventory*, for Pantex). These inventory reports must identify any chemicals brought on site at any point during that month. Each month the STR shall forward copies of the completed chemical inventory forms to The Company Hazardous Materials coordinator

13. Subcontractor performing work under this contract whose employees will be on-site greater than 30 days in a 12 month period at a DOE facility or are enrolled for any length of time in a medical or exposure monitoring program required by this rule or other Federal, State, or local regulation, must provide Occupational Medicine services, under the direction of a licensed physician meeting the credentials requirements of 10 CFR 851, Appendix A.8 (b), and personnel providing health services meeting the credentials requirements of Appendix A.8(c). A written description of Subcontractor occupational medicine program is a required submittal under this Agreement. The Subcontractor must provide The Company with the Subcontractor's principal medical provider. In any emergent medical situation, The Company Occupational Health Services or Emergency Services will provide the appropriate triage, stabilization, and transport of the worker.
14. The Subcontractor shall establish a medical clearance/surveillance program, as applicable to Hazardous Waste Operations and Emergency Response and respiratory protection, if applicable. The program shall include monitoring employees who may be occupationally exposed to health hazards associated with lead, benzene, asbestos, occupational noise, and other agents that are covered under Occupational Safety and Health Administration (OSHA) health standards.
15. The Subcontractor shall manage and perform work in accordance with the documented ES&H plan. Documentation of the ES&H plan shall describe how the Subcontractor will:
 - (a) Define the Scope of Work;
 - (b) Identify and analyze hazards associated with the work;
 - (c) Develop/implement feedback on adequacy of controls and continue to improve safety management;
 - (d) Perform work within controls and all applicable regulations;
16. Provide the tools and equipment necessary for safe performance of work. Tools and equipment (i.e., PPE, hand tools, power tools, ladders, scaffolds, hoists, vehicles, and mobile equipment, etc.) brought onto the site shall meet all federal, state, and local laws, regulations, and standards (OSHA, American National Standards Institute [ANSI], NFPA, etc.) and are subject to inspection and approval by The Company personnel. Tools and equipment shall be regularly inspected and maintained by The Subcontractor. Subcontractor employees shall be responsible for using the proper tool for the job.
17. The Subcontractor shall submit the ES&H plan to The Company for review and approval. The Company will establish dates for submittal, discussions, and revisions to the ES&H plan and guidance on the preparation, content, review, and approval of the ES&H plan.
18. The Subcontractor shall submit historical ES&H performance including the last two calendar years and current year-to-date OSHA 300-A logs and interstate Experience Modification Rate (EMR) from The Company's workers' compensation insurance carrier to The Company Purchasing Representative for review. This information is used in the qualification process during the contract award process. When the EMR average exceeds one, The Company S&IH personnel may waive this requirement based on a specific review of documentation, and proposed compensatory measures. The Subcontractor shall maintain the current year OSHA 300 Log and Summary on site at The Company.
19. The Subcontractor shall comply with all applicable site procedures as incorporated into the subcontract and assist The Company in complying with ES&H requirements of all applicable laws and regulations and

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applicable DOE directives. The Subcontractor shall cooperate with federal and nonfederal agencies having jurisdiction over ES&H matters under this Subcontract.

Environmental Compliance—The Subcontractor shall comply with all applicable environmental protection laws, Executive Orders, ordinances, regulations, directives, and codes. Upon request, the Subcontractor shall submit an Environmental Compliance Plan (ECP) outlining the methods proposed to address the environmental requirements specified in the statement of work, including waste management, storage, and disposal. The ECP shall specify the person responsible for ensuring the requirements are met. Additionally, the subcontractor shall comply with applicable requirements of statutes, regulations, and ordinances pertaining to protection of historical and cultural resources.

Sustainable Acquisition - Since the Subcontractor will be providing/procuring materials to be utilized to maintain The Company property and materials (i.e., traffic cones/barricades/stops/channelizers/delineators/etc., lubricants, parts, computers, etc.) then they will need to meet the minimum sustainable acquisition requirements (i.e., recycled content, biobased materials, Energy Star® certified products, the Electronic Product Environmental Assessment Tool (EPEAT) designed products, water sense, etc.) unless a justification is approved by The Company Sustainable Acquisition Program Office via form UCN-26296, *Appendix D - Exemption Justification Form For Sustainable Acquisition Products (i.e., Biobased/Recycled Content, Remanufactured, EPEAT, Energy/Water Efficient, etc.) Designated Products*. The Subcontractor is also required to provide data to The Company Sustainable Acquisition Program including the description, date purchased, total dollar value, quantity, and unit price for each of the sustainable materials purchased (i.e., recycled content, biobased, energy efficient, EPEAT, etc.) on an annual basis no later than October 5th of each year for the previous Fiscal Year (October 1st through September 30th) unless these items are purchased using the Y-12 procurement system.

Sustainable Disposition - The Company shall be responsible for the disposition of all recyclable material and waste generated as a result of this subcontract. The Subcontractor shall work with the STR to identify potential waste streams, and The Company Waste Management will provide a Waste Management Plan (WMP) that contains the requirements to follow related to material disposition if it is determined to be required by The Company Waste Management. The WMP will contain the requirements to follow related to material disposition. The Subcontractor shall acknowledge the requirements outlined in the WMP. All recyclable and waste products including Universal Waste materials (i.e., lamps, batteries, etc.) will be dispositioned of in accordance with The Company WMP. The STR shall direct the Subcontractor to segregate and accumulate recyclable material, universal waste, and waste in appropriately identified containers and store containers in approved designated areas at the facility. The STR shall complete any necessary forms/submittals to facilitate the materials disposition. The Subcontractor shall bag/containerize waste/recyclable materials at the direction of the STR and in accordance with the WMP, but will not remove any waste/recyclable materials from Y-12. If waste streams are identified that are not addressed in the existing WMP, the STR will contact Waste Management to update the WMP. The Subcontractor shall comply with applicable regulatory, DOE, and The Company sustainable disposition requirements related to material reuse and recycle and waste management.

The Subcontractor shall be responsible for the segregation of the waste to the maximum extent possible to support the recycling of materials (i.e., plastics, cardboard, aluminum beverage cans, scrap metal, etc.)

The use or purchase of any aerosol cans must be approved by Y-12 Environmental Compliance via completion of UCN-21225, *Request for Exception from the Y-12 Complex Aerosol Can Policy* prior to purchase, use at Y-12, or bringing to Y-12 facilities.

Delivery of any materials should be in reusable containers to decrease the amount of cardboard/etc. for recycling, if at all possible. If this is not possible, then materials should be delivered in containers that meet one of The Company's current recycling streams.

Radiation Safety/Radiological Control Compliance—The Subcontractor shall comply with all applicable radiation safety/radiological control regulations and requirements of the DOE, and shall take all reasonable precautions in the performance of the work under this order to protect the safety and health of employees and members of the public. The Subcontractor shall adhere to the applicable radiation safety/radiological control requirements contained in the site requirements as delineated in the SOW. The requirements incorporate 10 CFR 835, *Occupational Radiation Protection*, and other DOE contractual radiation safety/radiological control requirements that flow down to subcontractors. All Subcontractor personnel shall conform to The Company applicable radiation

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safety/radiological control rules and procedures as well as any area specific radiation safety/radiological control rules and procedures

The Subcontractor moving any nonexempt sealed radioactive source and/or radiation generating devices to or from The Company shall include in the radiation safety/radiological control plan specific methods, operational procedures, and person responsible for compliance with regulations in performance of this activity.

Hoisting and Rigging activities performed at The Company shall follow the requirements of DOE-STD-1090, DOE Hoisting and Rigging Standard.

Compliance to Federal, State, and Local Regulations - All subcontract personnel on DOE property managed by The Company shall comply with the requirements of 10 CFR 851; DOE Orders 225.1A; 231.1A, Change I; and 420.1B and other applicable federal, state, and local standards. These laws, regulations, and standards include, but are not limited to, OSHA, U.S. Department of Transportation (DOT) ANSI, American Society of Mechanical Engineers, and NFPA. Subcontractors shall comply with the applicable safety and health requirements for their covered workplace as referenced in 10 CFR 851.23, *Safety and Health Standards*.

Compliance to Federal, State, and Local Regulations - All subcontract personnel on The Company property shall comply with all applicable federal, state, and local standards and regulations including but not limited to, OSHA, DOT, and Federal Motor Carrier Safety Regulations (FMCSR), Pipeline and Hazardous Material Safety Administration (PHMSA), Hazardous Materials (HM) Regulations, National Fire Protection Association, American National Standards Institute, and American Society of Mechanical Engineers standards. Manufacturer shall conform to all applicable laws/regulations, to include Federal Motor Vehicle Safety Standards.

Transportation Compliance Verification—Commercial Motor Vehicles defined by 49 CFR 390.5, *Definitions*, shall conform to all applicable laws/regulations, to include Federal Motor Vehicle Safety Standards. All off-site and on-site nonhazardous and hazardous materials, substances, and waste transportation and commercial motor vehicle activities shall be performed in full compliance with all applicable federal, state, and local requirements, to include proper packaging, marking, labeling, placarding, shipping documentation, emergency response requirements, vehicle inspection, load securement, vehicle condition, driver qualification, and carrier safety carriers shall demonstrate that:

- A. Commercial vehicle operators are properly licensed and medically certified. The subcontractor shall provide list of both qualified drivers licenses and their medical cards.
- B. Commercial vehicle has a current periodic (annual) inspection and are in compliance with the FMCSR, PHMSA, and HM regulations.
- C. Carrier has sufficient liability insurance as outlined in the FMCSR.
- D. Carrier has a SAFER Score not exceeding 85.
- E. Commercial vehicles must have a compliance inspection administered by a Transportation Compliance representative of The Company upon arriving on site.

An over dimensional shipment is defined according to the guidance from the state(s) of Tennessee/Texas Departments of Transportation; consequently, if the shipment exceeds any of the measurements described below, a Temporary Traffic Control Plan is required.

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TENNESSEE

Gross Weight	80,000 pounds	Width	8'-6"
Single Axle	20,000 pounds	Height	13'-6"
Tandem Axle	34,000 pounds		
Length			
Straight Truck			45'
Straight Truck with Trailer			65'
Truck Tractor & Semi Trailer			50' Kingpin to Rear of Trailer

TEXAS

Gross Weight	80,000 pounds	Width	8'-6"
Single Axle	20,000 pounds	Height	14'
Tandem Axle	34,000 pounds		
Length			
Single Motor Vehicle			45'
Truck Tractor			Unlimited
Semitrailer, of two vehicle combination			59'
Two-Vehicle combination, other than a truck-tractor combination			65'
Three-Vehicle combination other than truck-tractor combination			65'
Each trailer or semitrailer of a twin-trailer combination			28.5'

All Subcontractor personnel shall conform to The Company's applicable and/or specific occupational safety and health rules and procedures as delineated in SOW. The Subcontractor shall regularly inspect the workplace to ensure compliance to these standards.

Unless otherwise specified in the contract document, The Company subcontractors working on-site will work under The Company's approved Worker Safety and Health program. The contract between The Company and the subcontractor will contain specific contract scope, applicable worker safety and health requirements, and other terms and conditions.

Safety and Health Training shall ensure supervisory responsibilities include ensuring compliance to OSHA, DOE, and state OSHA mandated training requirements, where applicable, to include but not limited to, benzene, asbestos, hearing conservation, and hazard communication.

The Subcontractor shall promptly evaluate and resolve any noncompliance with applicable ES&H requirements and the ES&H plan. If the Subcontractor fails to provide resolution or, if at any time, the Subcontractor's acts or failures to act causes substantial harm or an imminent danger to the environment or health and safety of employees or the public, The Company may issue an order stopping work in whole or in part. Any stop work order issued by The Company under this Clause, or issued by the Subcontractor to a lower-tier subcontractor in accordance with requirements of this Clause shall be without prejudice to any other legal or contractual rights of The Company. In the event that The Company issues a stop work order, an order authorizing the resumption of the work may be issued at the discretion of The Company. The Subcontractor shall not be entitled to an extension

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of time or additional fee for damages by reason of, or in connection with, any work stoppage order in accordance with this Clause.

The Subcontractor is responsible for compliance with the ES&H requirements applicable to this Subcontract regardless of the performer of the work.

Subcontractor must ensure that legal, contractual, and technical requirements are flowed down to lower-tier subcontractors. These include, but are not limited to, Stop Work Authority and Integrated Safety Management DOE Acquisition Regulation (DEAR) clause.

The Subcontractor shall include in all of its lower-tier subcontracts involving performance of work at the site, the provisions of Section E, paragraphs 1 through 10. Inclusion of these provisions in lower-tier subcontracts shall not relieve the Subcontractor of its obligations with respect to environment, occupational safety, and health aspects of the work.

Site Reporting Requirements—The Subcontractor shall report to the STR, all site incidents (i.e., injuries, illnesses, fires, spills, near misses, property or equipment loss, etc.) for proper investigation and disposition. Report serious events, requiring immediate response to the Plant Shift Superintendent (PSS)

Y-12 Site (865-574-7172) or Pantex Site (806-477-5000 or 806-477-3333 for injuries). The STR shall ensure that the Subcontractor submits in writing, through the STR to the Safety and Industrial Hygiene Department, DOE F 5484.3, *DOE Individual Accident/Incident Report*, within five working days of accidents or incidents.

The Subcontractor must submit Subcontract Tabulation of Work Hours utilizing form UCN-21439, *Subcontract Safety Performance Report*, before the fifth day each month for the preceding month.

Subcontractor Files—Subcontractor shall maintain files on the project to document all training, inspections, certifications, qualifications, permits, and noncompliance notifications/responses.