

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 (DOE) Acquisition Regulation (DEAR) Clause 970.5223-1, *Integration of Environment, Safety, and Health into Work Planning and Execution*, applicable 10 CFR 851, *Worker Safety and Health Program* requirements, and all applicable federal regulations and site-specific requirements.

The Subcontractor must take all reasonable precautions in the performance of the work under this subcontract 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 must 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.

In performing work under this Subcontract, the Subcontractor must perform work safely, in a manner that ensures adequate protection for employees, the public, and the environment, and must be accountable for the safe performance of work. The Subcontractor must exercise a degree of care commensurate with the work and the associated hazards. The Subcontractor must 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.

Subcontractor must ensure that all applicable legal, contractual, technical, environmental, safety, and health requirements are flowed down to lower-tier subcontractors and shall remain responsible for ensuring compliance by its lower-tier subcontractors. Such requirements include, but are not limited to, Stop Work Authority, Worker Rights, and Integrated Safety Management DEAR Clause (970.5223-1).

In March 2026, the National Nuclear Security Administration (NNSA) approved a permanent variance from certain requirements incorporated by reference in 10 CFR 851. The variance implements a risk-based approach to worker safety and health, while maintaining an equivalent level of worker protection. Subcontractors must comply with the terms and conditions of the approved variance, as applicable to their work activities, and should familiarize affected workers with its requirements. The variance is available at: [Application for Permanent Variance to 10 CFR Part 851](#)

The variance affects the following consensus standards incorporated by reference in 10 CFR 851.23(a):

- (9) American Conference of Governmental Industrial Hygienists (ACGIH), *Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices* (2016);
- (10) American National Standards Institute (ANSI/ASSE) Z88.2, *American National Standard Practices for Respiratory Protection* (2015);
- (11) ANSI Z136.1, *Safe Use of Lasers* (2014);
- (12) ANSI Z49.1, *Safety in Welding, Cutting and Allied Processes*, Sections 4.3 and E4.3 (2012);
- (13) National Fire Protection Association (NFPA) 70, *National Electrical Code* (2017);
- (14) NFPA 70E, *Standard for Electrical Safety in the Workplace* (2015).

Nothing in the approved variance relieves the Subcontractor of its obligation to comply with applicable Occupational Safety and Health Administration (OSHA) standards or other federal, state, and local requirements. The Company reserves the right to supplement or tailor environmental, safety, and health requirements based on the scope, complexity, and hazards of the work. Such requirements will be communicated through the Statement of Work (SOW) and other subcontract documents, as applicable.

Subcontractor will provide a written project-specific Safety and Health Plan (SHP) that provides for safety over all aspects of the subcontract activities to be performed, including specific programs as required by OSHA for Company approval. Refer to [OSHA's Recommended Practices for Safety and Health Programs](#) and utilize the Explore Tools tab for downloadable templates, worksheets and reference materials as needed to develop subcontractor SHP.

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

The SHP will include OSHA's core elements of [Recommended Practices for Safety and Health Programs](#) including but not limited to management leadership; worker participation; hazard identification and activity hazard assessment; hazard prevention and control; education and training; OSHA program evaluation and improvement; and coordination and communication. Implementing a written SHP as described in the approach above is expected to satisfy DEAR Clause 970.5223-1, *Integration of Environment, Safety, and Health into Work Planning and Execution* and 10 CFR Part 851, *Worker Safety and Health Program* requirements.

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 must hold personnel accountable for meeting responsibilities.
2. Line Management must ensure clear and unambiguous lines of authority and responsibility for ensuring Environment, Safety, and Health (ES&H) are established and maintained at all organizational levels.
3. Line Management must assign responsibilities so those members of the organization know what performance is expected of them.
4. Line Management must provide adequate authority and resources so that responsibilities can be met.
5. Line Management must ensure personnel possess the experience, knowledge, skills, and abilities that are necessary to discharge their responsibilities.
6. Line Management must ensure employee understands the hazards and how to prevent exposure to such hazards.
7. Line Management must ensure supervisory responsibilities include reinforcing employee training through feedback and enforcement.
8. Line Management must have a new-hire orientation program.
9. Line Management must 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 must designate a Project Safety and Health Representative and an alternate representative and include qualifications and duties. (This designation must be inserted in the front of The Subcontractor's SHP.)

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 must be submitted where required pursuant to 29 CFR 1910.120, *Hazardous Waste Operations and Emergency Response*.
3. 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 must be at the workplace and readily available for review and instructions must be followed.
4. Lockout/Tagout (LOTO) of The Company hazardous energy sources (e.g., electrical hydraulic, etc.) is to be implemented by The Company. Subcontractor must work under The Company's LOTO Program and receive the applicable training unless Subcontractor's LOTO Program/Procedures complies with OSHA and submitted to and approved by The Company.

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

5. Supervisory responsibilities must include analyzing the work to identify hazards and implementing appropriate controls.
6. Engineering and administrative controls must 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. Environmental releases and worker exposures must be eliminated, mitigated, or otherwise controlled.
8. Line Management must ensure that current and potential 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 must 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 Subcontract award. The extent of documentation and level of authority must be tailored to the complexity and hazards associated with the work.
11. Upon request, the Subcontractor must 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 must be labeled in accordance with 29 CFR 1910.1200, *Hazard Communication*. The Subcontractor must provide to The Company Subcontract Technical Representative (STR) copies of the safety data sheets prior to bringing chemicals on-site. The STR, shall forward copies of safety data sheet to the Hazardous Material Inventory System (HMIS) Coordinator prior to the Subcontractor bringing chemicals on-site. All chemicals stored on-site must follow applicable NFPA storage guidelines.

In addition, per 40 CFR 370, *Hazardous Chemical Reporting: Community Right-to-Know*, on a monthly basis, the Subcontractor must provide to the STR the completed inventory form UCN-21445, *Subcontractor Hazardous Materials Inventory Report*. 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. If Subcontractor's employees are required by federal, state, or local regulations to participate in a medical or exposure monitoring program, the Subcontractor must provide occupational medical services under the direction of a licensed physician and must comply with all applicable OSHA medical surveillance requirements. The Subcontractor must submit to the STR written notice of a local medical provider for employees requiring local medical care. 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 must establish a medical clearance/surveillance program, as applicable to Hazardous Waste Operations and Emergency Response and respiratory protection, if applicable. The program must include monitoring for employees who may be occupationally exposed to health hazards associated with lead, benzene, asbestos, occupational noise, and other agents that are covered under OSHA health standards.

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

15. The Subcontractor must manage and perform work in accordance with the documented SHP. Documentation of the SHP must 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;
 - (e) 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 must meet all federal, state, and local laws, regulations, and standards and are subject to The Company Y12-071, Prohibited Tool Policy.
 - Tools and equipment must be regularly inspected and maintained by the Subcontractor
 - Subcontractor employees must be responsible for using the proper tool for the job.
16. The Subcontractor must submit the SHP to The Company for review and approval. The Company will establish dates for submittal, discussions, and revisions to the SHP and guidance on the preparation, content, review, and approval of the SHP.
17. The Subcontractor must 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 Subcontractor's workers' compensation insurance carrier to The Company Purchasing Representative for review. This information is used in the qualification process during the subcontract 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 must maintain the current year OSHA 300 Log and Summary on site at The Company.
18. The Subcontractor must 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 applicable DOE directives. The Subcontractor must cooperate with federal and nonfederal agencies having jurisdiction over ES&H matters under this Subcontract.

C. Environmental Compliance –

1. The Subcontractor must comply with all applicable environmental protection laws, Executive Orders, ordinances, regulations, directives, and codes.
2. Upon request, the Subcontractor must 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 must specify the person responsible for ensuring the requirements are met.
3. The subcontractor must comply with applicable requirements of statutes, regulations, and ordinances pertaining to protection of historical and cultural resources.

D. Suspect/Counterfeit Materials and Equipment –

1. The Subcontractor will comply with all requirements established in the subcontract terms and conditions related to restrictions and controls of suspect and counterfeit materials and equipment.

E. Sustainable Acquisition –

1. The Subcontractor is encouraged to maximize sustainable acquisition (i.e., recycled content, biobased materials, Energy Star® certified products, the Electronic Product Environmental Assessment Tool (EPEAT) designed products, water sense, etc.).

F. Sustainable Disposition –

1. The Company shall be responsible for the disposition of all recyclable material and waste generated as a result of this subcontract.
2. The Subcontractor must work with the STR to identify potential waste streams, and The Company 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.
3. The Subcontractor must 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.
4. 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.
5. The STR must complete any necessary forms/submittals to facilitate the materials disposition.
6. The Subcontractor must 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.
7. If waste streams are identified that are not addressed in the existing WMP, the STR will contact Waste Management to update the WMP.
8. The Subcontractor must comply with applicable regulatory, DOE, and The Company sustainable disposition requirements related to material reuse and recycle and waste management.
9. The Subcontractor must 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.)
10. 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.
11. 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.

G. Radiation Safety/Radiological Control Compliance –

1. The Subcontractor must comply with all applicable radiation safety/radiological control regulations and requirements of the DOE, and must take all reasonable precautions in the performance of the work under this subcontract to protect the safety and health of employees and members of the public.
2. The Subcontractor must adhere to the applicable radiation safety/radiological control requirements contained in the site requirements as delineated in the SOW. The requirements must incorporate 10 CFR 835, *Occupational Radiation Protection*, and other DOE contractual radiation safety/radiological control requirements that flow down to subcontractors.
3. All Subcontractor personnel must conform to The Company applicable radiation safety/radiological control rules and procedures as well as any area specific radiation safety/radiological control rules and procedures.
4. 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.



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

H. Hoisting and Rigging –

1. Activities performed at The Company must follow the requirements of DOE-STD-1090-2020, *DOE Hoisting and Rigging Standard*.

I. Compliance to Federal, State, and Local Regulations –

1. All subcontract personnel on The Company property must comply with all applicable federal, state, and local standards and regulations including but not limited to, OSHA, U.S. Department of Transportation regulations (DOT), and Federal Motor Carrier Safety Regulations (FMCSR), Pipeline and Hazardous Material Safety Administration (PHMSA), Hazardous Materials Regulations (HMR) Regulations.
2. Manufacturer must conform to all applicable laws/regulations, to include Federal Motor Vehicle Safety Standards.

J. Transportation Compliance Verification –

1. Commercial Motor Vehicles defined by 49 CFR 390.5, *Definitions*, must conform to all applicable laws/regulations, to include Federal Motor Vehicle Safety Standards.
2. All off-site and on-site nonhazardous and hazardous materials, substances, and waste transportation and commercial motor vehicle activities must be performed in compliance with 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 carriers must demonstrate that:
 - (a) Commercial vehicle operators are properly licensed and medically certified. The subcontractor must provide list of qualified drivers including their licenses and medical cards.
 - (b) Commercial vehicle has a current annual inspection and is in compliance with the FMCSR, PHMSA, and HMR.
 - (c) Carrier has sufficient liability insurance as outlined in the FMCSR.
 - (d) Carrier has a Safety and Fitness Electronic Records (SAFER) Score not exceeding 85.
3. Commercial vehicles are subject to a compliance inspection administered by Transportation Safety representatives upon arriving on site.
4. If the shipment exceeds any of the measurements described below, a Temporary Traffic Control Plan is required.
5. An over dimensional shipment is defined according to the guidance from the state(s) of Tennessee Department of Transportation;

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

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

K. Compliance to The Company's Occupational Safety and Health Requirements

1. All Subcontractor personnel must conform to The Company's applicable and/or specific occupational safety and health rules and procedures as delineated in SOW.
2. The Subcontractor must regularly inspect the workplace to ensure compliance to these standards.
3. 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.
4. The Subcontractor must promptly evaluate and resolve any noncompliance with applicable ES&H requirements and the SHP.
5. 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.
6. 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.
7. 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 of time or additional fee for damages by reason of, or in connection with, any work stoppage order in accordance with this Clause.
8. The Subcontractor is responsible for compliance with the ES&H requirements applicable to this Subcontract regardless of the performer of the work.
9. The Subcontractor must include in all of its lower-tier subcontracts involving performance of work at the site, the provisions of Section A, 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.

L. Site Reporting Requirements –

1. The Subcontractor must 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 Operations Center by calling 865-574-7172.
2. The Subcontractor must submit 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.
3. 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.

M. Subcontractor Files –

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