

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.

- A. The Seller 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. Y-12 shall notify the Seller in writing of any noncompliance with the provisions of this Clause. After receipt of such notice, the Seller shall immediately take corrective action. In the event that the Seller fails to comply with said regulations and requirements, Y-12 may, without prejudice to any other legal or contractual rights of Y-12, 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 Y-12. The Seller shall make no claim for an extension of time or for compensation or damages by reason of, or in connection with, such work stoppage.
- B. For the purposes of this Clause,
 - 1. Safety encompasses environment, safety, and health, including pollution prevention and waste minimization.
 - 2. Employees include subcontractor and lower-tier subcontractor employees.
- C. **Suspect/Counterfeit Materials and Equipment**
The Seller will comply with all requirements established in the contract terms and conditions related to restrictions and controls of suspect and counterfeit materials and equipment.
- D. In performing work under this Subcontract, the Supplier/Seller 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 Supplier/Seller shall exercise a degree of care commensurate with the work and the associated hazards. The Supplier /Seller shall ensure that management of environment, safety, and health functions and activities becomes an

integral, but visible, part of the Supplier/Seller's work planning and execution processes.

- E. **Management Commitment and Employee Involvement**
 - 1. Line management is responsible for the protection of employees, the public, and the environment. Line management includes those Supplier/Seller and lower-tier subcontractor employees managing or supervising employees performing work.
 - 2. Line Management shall hold personnel accountable for meeting responsibilities.
 - 3. Clear and unambiguous lines of authority and responsibility for ensuring ES&H are established and maintained at all organizational levels.
 - 4. Line Management shall assign responsibilities so those members of the organization know what performance is expected of them.
 - 5. Line Management shall provide adequate authority and resources so that responsibilities can be met.
 - 6. Line Management shall ensure personnel possess the experience, knowledge, skills, and abilities that are necessary to discharge their responsibilities.
 - 7. Line Management shall ensure employee understands the hazards and how to prevent exposure to such hazards.
 - 8. Line Management shall ensure supervisory responsibilities include reinforcing employee training through feedback and enforcement.
 - 9. Line Management shall have a new-hire orientation program.
 - 10. 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.

11. 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 company's ES&H plan.)

F. 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. Y-12 shall provide the permits, unless ES&H approves Seller's program. Permits provide details on the type of activity to be performed and the safety requirements necessary to perform the job. Permits shall be posted in a designated area of the workplace and the instructions must be followed.
4. Supervisory responsibilities shall include analyzing the work to identify hazards and implementing appropriate controls.
5. 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.
6. Releases and exposures shall be eliminated, mitigated, or otherwise controlled.
7. Line Management shall 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).
8. Line Management shall ensure that all equipment is maintained per manufacturer's instructions or per an established technical basis.
 9. The conditions/requirements for operations must be established and agreed upon by Y-12 and the Seller. These agreed-upon subcontract conditions /requirements are binding upon the Seller. The extent of documentation and level of authority shall be tailored to the complexity and hazards associated with the work.
 10. Upon request, the Seller shall complete and submit a Major Equipment Declaration that reflects maintenance, operation, and inspection of their heavy equipment.
 11. The Seller shall provide to the Y-12 Subcontract Technical Representative (STR) copies of Material Safety Data Sheets (MSDS) prior to bringing chemicals on site. All chemicals brought on site shall be labeled in accordance with 29 CFR 1910.1200, *Hazard Communication*. In addition, the Seller shall provide the Y-12 STR with the form UCN-21445, *Subcontractor Hazardous Materials Inventory Report*, on a monthly basis for any chemicals brought on-site at any point in time during that month, per the Emergency Planning and Community Right-to-Know Act (EPCRA) (Reference 40 CFR 370.20). All chemicals stored on site shall follow National Fire Protection Association (NFPA) storage guidelines.
 12. The Seller shall submit a written medical program under the direction of a licensed

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- physician meeting the credentials requirements of 10 CFR 851 Appendix A.8(b) and personnel providing health services meeting the credentials of 10 CFR 851 Appendix A.8(c). In any emergent medical situation, Y-12's Occupational Health Services or Fire Protection Operations will provide the appropriate triage, stabilization, and transport of the worker.
13. The Seller 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 OSHA health standards.
 14. The Supplier/Seller shall manage and perform work in accordance with the documented ES&H plan. Documentation of the ES&H plan shall describe how the Supplier/Seller will:
 - a. Define the SOW;
 - 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 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 Y-12 personnel. Tools and equipment shall be regularly inspected and maintained by the Supplier/Seller. Supplier /Seller employees shall be responsible for using the proper tool for the job.
 15. The ES&H plan shall describe how the Supplier/Seller will establish, document, and implement safety performance objectives, performance measures, and commitments in response to Y-12 program and budget execution guidance while maintaining the integrity of the ES&H plan. The ES&H plan shall also describe how the Supplier/Seller will:
 - a. Establish and communicate a clear goal for the ES&H plan and objectives for meeting that goal;
 - b. Provide for compliance with daily safety and health inspections of the workplace, to include abatement as necessary; and
 - c. Maintain daily housekeeping standards.
- G. The Supplier/Seller shall submit the ES&H plan to Y-12 for review and approval. Y-12 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. On an annual basis, the Supplier/Seller shall review and update, for Y-12 approval, its safety performance objectives, performance measures, and commitments consistent with and in response to Y-12 program and budget execution guidance and direction. Resources shall be identified and allocated to meet the safety objectives and performance commitments as well as maintain the integrity of the entire ES&H plan. Accordingly, the ES&H plan shall be integrated with the Supplier/Seller's business processes for work planning, budgeting, authorization, execution, and change control.
 - H. The Supplier/Seller shall comply with all applicable site procedures and assist Y-12 in complying with ES&H requirements of all applicable laws and regulations and applicable DOE directives. The Supplier/Seller shall cooperate with federal and nonfederal agencies having jurisdiction over ES&H matters under this Subcontract.
 - I. Environmental Compliance - The Supplier/Seller shall comply with all applicable environmental protection laws, Executive Orders, ordinances, regulations, directives, and codes. Upon request, the Supplier/Seller shall submit an Environmental
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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.

- J. Radiological Control Compliance - The Supplier/Seller shall comply with all applicable 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 Supplier/Seller shall adhere to the applicable radiological control requirements contained in the site S/RID as delineated in the SOW. The S/RID requirements incorporate 10 CFR 835, *Occupational Radiation Protection* and other DOE contractual radiological control requirements that flow down to Supplier/Sellers. All Supplier /Seller personnel shall conform to applicable Y-12 and area specific radiological control rules and procedures.

Hoisting and Rigging activities performed at Y-12 shall follow the requirements of DOE-STD-1090, *DOE Hoisting and Rigging Standard* (current version), as implemented in the applicable S/RID.

The Supplier/Seller moving any nonexempt sealed radioactive source and/or radiation generating devices to or from Y-12 shall include in the radiological control plan specific methods, operational procedures, and person responsible for compliance with regulations in performance of this activity.

- K. Compliance to Federal, State, and Local Regulations - All subcontract personnel on Y-12 property shall comply with the requirements of 10 CFR 851; DOE Orders (current version) 225.1B, Accident Investigations; 420.1B, Change 1, Facility Safety; and DOE Manual 231.1-1A, Change 2, ES&H Report Manual; and other applicable federal, state, and local standards. These laws, regulations, and standards include, but are not limited to, OSHA, Department of Transportation/traffic laws, 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*.

All Seller personnel shall conform to applicable Y-12 and/or specific occupational safety and health rules and procedures as delineated in SOW. The Seller shall regularly inspect the workplace to ensure compliance to these standards.

Unless otherwise specified in the contract document, Y-12 subcontractors working on-site will work under Y-12's approved Worker Safety and Health program. The contract between Y-12 and the subcontractor will contain specific contract scope, applicable worker safety and health requirements, and other terms and conditions.

When a Y-12 subcontractor chooses not to work under Y-12's approved Worker Safety and Health Program and the applicable work scope requires a Worker Safety and Health Program per 10 CFR 851, the following actions must be performed prior to work starting on-site:

- Y-12 subcontractor submits a Worker Safety and Health Program, as defined in 10 CFR 851, to Y-12 for approval.
 - Y-12 representatives review, recommend approval, and provide the document to NNSA NPO.
 - NNSA NPO reviews and approves the Y-12 Subcontractor Worker Safety and Health Program.
- L. Safety and Health Training shall ensure supervisory responsibilities include ensuring compliance to OSHA, DOE, and Tennessee OSHA mandated training requirements, where applicable, to include but not limited to, benzene, asbestos, hearing conservation, and hazard communication.
- M. The Supplier/Seller shall promptly evaluate and resolve any noncompliance with applicable ES&H requirements and the ES&H plan. If the Supplier/Seller fails to provide resolution or, if at any time, the Supplier /Seller'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, Y-12 may stop work in whole or in part. Any stop work order issued by Y-12 under this Clause, or issued by the Supplier/Seller to a lower-tier subcontractor in accordance with requirements of this Clause shall be without prejudice to any other legal or contractual rights of Y-12. In the event that Y-12 stops work, an order authorizing the resumption of the work may be issued at the discretion of Y-12. The Supplier/Seller shall not be entitled to an extension of time or additional fee for damages by reason of, or in connection with, any work stoppage in accordance with this Clause.

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

1. Seller 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 (ISM) DOE Acquisition Regulation (DEAR) clause.
2. The Supplier/Seller shall include a clause substantially the same as this Clause in lower-tier subcontracts involving complex or hazardous work on site at a DOE-owned or leased facility. Such lower-tier subcontracts shall provide for the right to stop work under the conditions described in this Clause. Depending on the complexity and hazards associated with the work, the Supplier/Seller may require that the lower-tier Seller(s) submit an ES&H plan for the Supplier/Seller's review and approval.
3. The Supplier/Seller shall include in all of its lower-tier subcontracts involving performance of work at the site, the provisions of Section E of this Appendix, paragraphs 1 through 11. Inclusion of these provisions in lower-tier subcontracts shall not relieve the Supplier/Seller of its obligations with respect to environment, occupational safety, and health aspects of the work.

O. Site Reporting Requirements – The Supplier/Seller shall report to the STR, all site incidents (.e., injuries, illnesses, fires, spills, near misses, property or equipment loss), for proper investigation and disposition. Report serious events requiring immediate response to the Plant Shift Superintendent (PSS) (865-574-7172). The STR shall ensure that the Seller submits in writing, through the STR to the ES&H Performance Improvement Department, DOE F 5484.3, *DOE Individual Accident/Incident Report*, within five working days of accidents or incidents. Reference Y73-170, *Safety and Health Incident and near-Miss Investigation and Reporting*, for additional details.

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

(End of clause.)