Environment, Safety and Health for Onsite Work

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, Worker Safety and Health Program (WSHP), and all applicable federal regulations and site-specific requirements.

For the purposes of DUF6 Form 9063,

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

A. Suspect/Counterfeit Materials and Equipment

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

B. Zero Accident Philosophy and Expectation:

DUF6 operates with a zero accident philosophy and expectation. DUF6 believes that all accidents are preventable. 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. It is expected that the subcontractor will follow the values and core principles identified in the DUF6 ESH Policy (DUF6-POL-060) Attachment B.

C. Maintain a Workplace Free from Recognized Hazards:

DUF6 provides a place of employment that is free from recognized hazards that are causing or have the potential to cause death or serious physical harm to workers. The subcontractor shall ensure that work is performed in accordance with applicable requirements of 10 CFR 851, including any compliance order(s).

D. Safety and Health Requirements for Conducting Work on the DUF6 Project:

Attachment C, *List of Workplace Safety and Health Requirements*, lists the health and safety **requirements** for DUF6 (and its subcontractors) work. This list details requirements such as ANSI, ASME, DOE, NFPA, and various CFRs. (PROCURMENT WILL SEND A COPY OF PLN-074 & PLN-040 TO ALL BIDDERs).

DUF6's WSHP and Integrated Safety Management System (ISMS) requirements apply to all operations including design, construction, operation, maintenance, and environmental restoration activities both to the prime subcontractor but to ALL of their lower tiers as well. The prime subcontractor will be held responsible for their lower tier subcontractor's compliance.

Unless otherwise specified in the contract document, DUF6 subcontractors working on-site will work under the DUF6 Worker Safety and Health (WSHP) and Integrated Safety Management Systems (ISMS) program requirements established in this document.

Management Commitment and Employee Involvement

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

Line Management shall:

1. Hold personnel accountable for meeting responsibilities.
2. Establish clear and unambiguous lines of authority and responsibility for ensuring ES&H are established and maintained throughout all organizational levels.
3. Assign responsibilities so that everyone understands what performance is expected of them.
4. Provide adequate authority and resources so that responsibilities can be met.
5. Ensure personnel possess the experience, knowledge, skills, and abilities that are necessary to discharge their responsibilities. Ensure that this knowledge, skills, and/or abilities are documented as necessary to provide verifiable evidence such as training certificates, qualification cards, or similar as applicable.
6. Ensure employee understands the hazards and how to prevent exposure to such hazards.
7. Ensure supervisory responsibilities include reinforcing employee training through feedback and enforcement.
8. Have a new-hire orientation program.
9. Ensure resources are effectively allocated to address ES&H, programmatic, and operational considerations.
10. Protecting employees, the public, and the environment is a priority whenever activities are planned and performed.
11. Report all near misses, *potential* employee exposures/injuries/illnesses/environmental releases/spills/leaks IMMEDIATELY!

E. Subcontractor Construction Performed Work:

The construction **bidder** will submit as part of their bid the following four items (A-D) as well as agree to provide/follow the additional items (1-21) if their bid is the winning one.

Note: Some/all of the following may be required for specific maintenance bid tasks and will so be identified in the associated bid packages. **However, all contractors must comply with section G of this document.**

A) A commitment letter signed by a senior company executive (similar to the example attached in attachment E) for all related subcontractors (including lower tier subcontractors) committing to follow the DUF6 WSHP and ISMS plans or their own company's plan(s), if DUF6 has reviewed, and determined it to be at least as effective in implementing the requirements of 10CFR851. IF the subcontractor('s) plans fail to meet the minimum 10 CFR 851 requirements, THEN the subcontractor must either enhance their plan(s) OR agree to follow MCS'. This commitment to MCS' Plan(s) and/or approval of their own Plan must occur prior to commencement of field activities. Note: Does not apply to DOE prime contractors with an approved WSHP/ISMS Plans.

B. The name and resume of the on-site representative(s) responsible for subcontractor's day-to-day operations (including lower tier subcontractors) as well as the competent individual designated with full contractor authority to inspect and enforce required safety requirements. These individual(s), or their identified and similarly qualified designees, must be on site whenever work is occurring. (Note: Can be the same individual for smaller jobs).

C. The competent individual(s) will be responsible for on-site implementation of the safety plan, development/review/revision of the safety related activity hazard analyses (AHAs) and associated plans (e.g. fall protection, hoisting and rigging, steel erection plan(s) as applicable) as well as safety related permits (e.g. hot work, confined space, etc.), as applicable. Note: These individual(s) can be removed from the Project **at will** by DUF6, based upon their in-field performance and/or interactions. However, they must be replaced with someone with similar or better qualifications.

D. The contractors' safety disciplinary policy for repeated and/or serious safety violations must be submitted to DUF6 and reviewed will all on-site affected personnel. This review may be conducted as part of the orientation (step 8 above-*New Hire Orientation*).

The **successful** construction bidder ***(awardee)*** will submit at least 30 days prior to beginning Site work the following (1-21) **AND** the other items contained in section G of this document, as applicable. Where conflicts arise between these sections, the more conservative/restrictive requirement will be applicable.

1. A pre-mobilization meeting will be held with the winning bidders' senior company officials, subcontractor site representatives responsible for day-to-day operations, and the subcontractor's designated competent safety individual, as applicable. The purpose of this meeting is to ensure that all parties understand the importance of safety and the expectations/requirements of each.
2. Safety related plans/procedures/permits/activity hazard analyses will be submitted to DUF6 for approval PRIOR to their implementation, as applicable. As much prior notice and review, time should be provided to DUF6 as feasible based upon the situation. However, in all cases, DUF6 must review prior to their use.
3. All subcontractor personnel, including lower tier subcontractor personnel, must be trained on their expected actions relating to the various plans/permits/AHAs/etc. PRIOR to their use. Additionally, all personnel must be trained and encouraged to suspend/stop work if a new/unrecognized/uncontrolled hazard is discovered. Suspending/stopping work for new/unrecognized/uncontrolled hazards is the expectation.
4. Second/third/and other lower tier subcontractors performing work on site must have safety qualifications compliant with section 15 G, *(Hazard Prevention and Control*) of this form. IF the lower tier subcontractors cannot comply with the safety qualifications, THEN permission to use them must be obtained from DUF6 and a plan developed to ensure that these lower tier contractors' safety would be enhanced while on site.
5. The subcontractor will perform periodic documented inspections of the worksite, when fieldwork is occurring, focusing on various safety related subjects. These inspections will be available for review by DUF6. (Note: Tasks that are more complex will be expected to have inspections that are more frequent while simpler/less hazardous tasks may have fewer. However, at least 1 safety related inspection per day is expected, as a minimum. These inspections will focus on different ES&H aspects of a job.)
6. **NO** deliveries will be made to the site, including laydown yards/staging, areas without contacting the DUF6 STR prior to delivery AND having a subcontractor employee present to receive the delivery, unless prior arrangements have been made with the STR. This subcontractor employee will be responsible for ensuring that the delivery is made to the correct location, safely unloaded utilizing appropriate hazard controls, does not create a hazard to others (e.g. block a road/unstable stack/etc.) and in the case of a dump truck, the truck is not released until the bed if fully lowered and the cover, as applicable is re-installed. Failure to have a responsible receiving employee can result in the delivery being denied entry and rejected at the subcontractor's expense.
7. Subcontractor personnel performing ground work around heavy equipment (e.g. dozing, grading, rolling, panning, excavating, etc.) and/or around hoisting and rigging activities will be required to wear high visibility top outer wear (e.g. shirts/jackets/vests). Additionally, spotters, crane signal/flag persons will also wear high visibility outerwear. Finally, all personnel working on/adjacent (within 15 ft.) of an active roadway will wear ANSI Class II or better high visibility gear as required by the Uniform Traffic Code/States of KY/OH traffic laws, as most applicable.
8. Subcontractors who will disturbing the ground/vegetative cover will be required to adhere to best management control measures identified during initial work control planning sessions in accordance with the PGDP Best Management Practices (BMP) Plan and Storm Water Pollution Prevention Plan (SWPPP). Control measures will be incorporated on a case-by-case basis into work control documents/instructions. (*Procurement send a copy of BMPs/SWPPP to affected bidders as part of the bid package for applicable scopes of work.)*
9. All fall hazards greater than 4 ft. will either be protected by guard rails/barriers or be roped/flagged off at least 6 ft. from the edge. IF 6 ft. cannot be maintained, THEN a more substantial barrier will be required (e, g, snow fencing / posts/rails. Personnel performing "leading edge" roofing work, pre-cast concrete erection, or similar activities will be required to have 100% fall protection/prevention. The use of a "safety monitor/warning system" is not adequate for leading edge or pre-cast concrete erection work activities. The subcontractor will develop a fall protection/prevention plan that provides secure anchorages and means for all employees to fall no more than 4 ft. The anchorage point/lifeline will be no lower than 4 ft. from the deck level and self-retracting lifelines (SRLs), if used will be ANSI 359.14 SRL-LE designated.

10. IF the subcontractor brings onto site their own walkie-talkies (e.g. FRS frequency radios), THEN DUF6 security must approve them and at least one will be provided to the STR for ready communication.
11. Soil compaction measuring devices (e.g. Troxler gauges) must be maintained and secured by the license holder. These gauges will be secured in a locked container when not in use and will be leak checked prior to their 1st used and periodically thereafter. A copy of the pertinent information on the gauge as well as the license holder/training/qualifications will be readily available and provided to the STR prior to the gauge's initial arrival.
12. Welding on non-carbon steel will be coordinated with the STR prior to performing and issuance of a "hot work permit" so that appropriate safety controls may be implemented. The subcontractor may have to provide local exhaust ventilation/HEPA filtration devices as applicable and as determined on a case-by-case situation dependent upon volume of welding, location of welding, among other factors. Air sampling and respiratory protection, for chromium contamination, during stainless steel fabrication may be required on a case-by-case basis.
13. Hazards generated by each subcontractor will be the responsibility of the subcontractor to flag off/provide barriers against accidental entry/exposures (e.g. excavations, falling object protection against elevated masonry work, arc flash UV/IR eye hazards, etc.). The subcontractor will maintain such barriers until the hazard is eliminated.
14. IF mechanical hazard control device is required to protect against an immediate hazard (e.g. pumps or ventilators in a confined space or LEVs/NAMs to prevent over exposure, THEN a hazard attendant will be posted at the control to warn affected personnel that the mechanical device failed.
15. Whip checks will be used on all "Chicago air fittings", GFCIs used on all extension cords, fuel catch pans with pigs whenever fueling occurs, concrete waste/washouts will only occur in designated locations, a 15 min ANSI approved eyewash will be present whenever concrete pumping occurs, water will be available to suppress concrete cutting/rock spreading dusts. No visible limestone/concrete dusts can be visible 12" from point of cutting/spreading.
16. No rusty/dirty rebar will be used nor will black beauty be used to clean the rust/scale/dirt from rebar prior to installation or anywhere else on the PGDP. No black-beauty or black beauty contaminated equipment is allowed Site. Black-beauty is naturally radioactive.
17. All excavations will be considered to be conducted in class B at best and most likely class C soils. A competent person will perform the appropriate documented inspections prior to personnel entering the excavation at least daily and/or as conditions change (e.g. water intrusion).
18. Training records for personnel will be readily available for review including lower tier subcontractors. All personnel will be current in all required training as identified by OSHA regulations, Company Policies, and/or WSHPs.
19. A documented inspection program will be developed for all critical safety elements to include but not limited to fall protection, hoisting and rigging, electrical cords/GFCIs, heavy equipment/PITs, and similar. Records of inspections will be available.
20. The subcontractor is responsible for storing its supplies/materials appropriately in a safe manner and to coordinate waste disposal for its areas. Good housekeeping will be maintained in all of its areas.
21. Tools, including hard hats worn in elevated positions where there is a potential for workers working below, will be restrained by chin straps, hard hat "grabbers", lanyards, tethers, or similar.

F. Green Purchasing

The Subcontractor, pursuant to DOE Order 436.1A, Departmental Sustainability, Executive Order 13423, Strengthening Federal Environmental, Energy and Transportation Management, and 13514, Federal Leadership in Environmental, Energy, and Economic Performance, shall provide its services in a manner that promotes the natural environment, reduces greenhouse gas emissions and protects the health and well-being of Federal employees, contract service providers and visitors using the facility, including supporting the DOE environmentally preferable initiatives for recycled products, bio-based products, energy efficient products, computer products, non-ozone depleting alternative products and water efficient plumbing products to the extent that the services provided by subcontractor require provision of any of the above types of products. The initiatives important to these Orders are explained on the following Government or Industry Internet Sites:

1. Recycled Content Products are described at http://epa.gov/cpg.
2. Biobased Products are described at http://www.biopreferred.gov/.
3. Energy efficient products are at http://energystar.gov/products for Energy Star products.
4. Energy efficient products are at http://femp.energy.gov/procurement for FEMP designated products.
5. Environmentally preferable and energy efficient electronics includin74g desktop computers, laptops and monitors are at http://www.epeat.net the Electronic Products Environmental Assessment Tool (EPEAT) the Green Electronics Council site.
6. Greenhouse gas emission inventories are required, including Scope 3 emissions that include contractor emissions. These are discussed at Section 13 of Executive Order 13514 that can be found at http://www.archives.gov/federal-register/executiveorders/disposition.html.
7. Non-Ozone Depleting Alternative Products are at http://www.epa.gov/ozone/strathome.html.
8. Water efficient plumbing products are at http://epa.gov/watersense.

Subcontractor shall flow down the requirement for Green Purchasing to subcontractors to support the DOE environmentally preferable initiatives for recycled products, bio-based products, energy efficient products, computer products, non-ozone depleting alternative products and water efficient plumbing products.

DUF6 Form 9063 incorporates DEAR 952.223-78, Sustainable Acquisition Program (Oct 2010) by reference as if, it was incorporated in its entirety. For Department of Energy Acquisition Regulation (DEAR) provisions incorporated by reference, “Contractor” means Subcontractor and “Contracting Officer” means the Contractors Procurement Representative. Government means the owner or the Contractor except that the term “Government” or its authorized representatives shall retain its original meaning where (1) the provision pertains to, addresses or governs rights and obligations in property (real, personal or intellectual), (2) a right, act, authorization or obligation can be granted or performed only by the Government (e.g., under the Nuclear Hazards Indemnity Agreement provision), (3) the intent of the provision is to provide benefit or protection to the Government, or (4) when access to the subcontractor's proprietary financial or other data is required. DEAR clauses can be found at http://www.management.energy.gov/DEAR.htm. Upon request, DUF6 will make their full text available.

G. 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. This includes the phases of mobilizing and demobilizing inclusive of vendor/supplier deliveries.

Hazards associated with these phases must be controlled and a subcontractor employee must be present to receive them when delivered on site. These deliveries will be coordinated with the STR in advance. The receiving employee will be responsible for ensuring that the supplier/vendor performs their actions in a safe compliant manner consistent with 10 CFR 851. This assurance includes acting as a spotter and ensuring that dump trucks have their beds fully lowered prior to driving away from the staging area.

2. Written, properly authorized, current permits (e.g., confined space, LO/TO, environmental) or other technical work documents (e.g. work packages) are required before work begins. Technical work documents provide details on the type of activity to be performed and the safety requirements necessary to perform the job. DUF6 shall provide the technical work documents, unless ES&H approves the Subcontractor's program documents. All technical work documents, including those provided by Subcontractor, shall be kept at a designated area of the workplace, requirements strictly followed, and must be readily available for review.
3. Line Management's responsibilities shall include analyzing the work to identify hazards and implementing appropriate controls, as well as ensuring that the technical work documents are adhered to and to be vigilant for changing conditions that may require modifications to the technical work documents and/or a pause until the newly recognized hazards may be effectively controlled.
4. Engineering and administrative controls shall be incorporated to prevent and mitigate hazards and tailored to the work being performed and the associated hazards whenever possible. Personal protective equipment will only be used to supplement the engineering/administrative controls and will used as a "last line of defense". Emphasis should be on designing the work and/or controls to reduce or eliminate the hazards, thus preventing potential "accidents"/injuries.
5. Releases and exposures shall be eliminated, mitigated, or otherwise controlled. All potential exposures/releases shall be reported IMMEDIATELY!!!
6. Line Management shall ensure that current and potential scope of work hazards are analyzed, identified, correct and/or controlled as work progresses being ever vigilant for changing conditions or unanticipated/recognized hazards. Hazards shall be eliminated/controlled via the following methodology:
    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).
7. Line Management shall ensure that all equipment is maintained per manufacturer's instructions or per an established technical basis.
8. The conditions/requirements for operations must be established and agreed upon by DUF6 and the Subcontractor. These agreed-upon subcontract conditions/requirements are binding upon the Subcontractor. The extent of documentation and level of authority shall betailored to the complexity and hazards associated with the work.
9. Upon request, the Subcontractor shall complete and submit a Major Equipment Declaration that reflects maintenance, operation, and inspection of their equipment.

10. The Subcontractor shall provide to the DUF6 Subcontract Technical Representative (STR) copies of Safety Data Sheets (SDS) and receive approval **prior** to bringing chemicals on site. All chemicals brought on site shall be labeled in accordance with 29 CFR 1910.1200. In addition, the Subcontractor shall provide the DUF6 STR with a Form 1389, *Chemical Procurement Form* (Attachment D), prior to being brought on site. All chemicals stored on site shall follow the chemical's manufacturer's and DUF6 storage guidelines, as applicable.
11. Hoisting and Rigging including crane/hoist operations will follow the requirements contained in DOE Standard 1090 (DOE-STD-1090-2020, *Hoisting and Rigging*).
    i. Proof of crane operator certification will be provided to the DUF6 STR at least 2 days prior to bringing the certified operator on site, as applicable.
    ii. Additionally, all designed flagmen, signalers, riggers, and associated hoisting and rigging related personnel shall have the required proof of qualification submitted at least 1 day prior to their being approved to perform the designated function, as applicable.

b. Outrigger pad mats SHALL BE USED on all lifts where outriggers are used for lifting unless permission is obtained to waive this requirement.

c. The DUF6 Project will inspect all hoisting and rigging equipment prior to being allowed to operate/be used for the first time on Site.

12. The Subcontractor shall establish a medical program that provides first aid treatment and medical approval if required for specific activities. Upon request, the Subcontractor must provide DUF6 with the company's principal medical provider and evidence of employee medical approvals, as applicable.
13. The Subcontractor shall establish a medical clearance/surveillance program, as applicable. The program shall include monitoring employees who may be occupationally exposed to health hazards associated with heavy metals, occupational noise, and other agents that are covered under OSHA health standards.
14. The subcontractor will arrange for all employees including lower-tier subcontractors who are physically on Site for more than 30 days to have an Occupational Medical Physical per the requirements of 10 CFR 851. The cost of the physical of this specific physical will be direct billed to MCS. Note: This physical is separate and does not alleviate the contractor from the requirements in other sections of this form/OSHA requirement.
15. Any on Site work related injury must be immediately reported as detailed in the associated Site trainings and other requirements. The injured worker may not return to the Site until cleared by the MCS Site Occupational Medical Provider. This return-to-work evaluation will be directly billed back to MCS.
16. The Subcontractor shall manage and perform work in accordance with the documented Worker Safety and Health plan. The Subcontractor will have provisions describing how they will perform/comply with the following requirements:
    a. Perform 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 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 DUF6 personnel. Tools and equipment shall be regularly inspected and maintained by the Subcontractor. Subcontractor employees shall be responsible for using the proper tool.

17. The Subcontractor will describe how they 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 of safety and health issues as necessary.

    c. Maintain daily housekeeping standards.

    d. Establish/document/implement safety performance objectives/performance measurements.

    e. Ensure that all subcontractor personnel and visitors understand that they Have “Stop Work Authority” and this authority may be exercised without fear of reprisal.

    f. The Subcontractor may maintain it's company's ES&H plan while working under this Subcontract. However, the subcontractor will adhere and follow the provisions of the *DUF6 Worker Safety and Health Program* (DUF6-PLN-074 and the *ISMS Plan*, DUF6-PLN-040). Additionally, the subcontractor will follow the *DUF6 Hazardous Energy Control Program* (DUF6-U-GFP-0216), the *DUF6 Confined Space Entry Program* (DUF6-U-SHP-0512), among others dependent upon the scope of work to be performed. DUF6 will demand the contractor adhere to the requirements of 10 CFR 851 as described in Programs DUF6-PLN-074 and 040 as a minimum. Any request for a variance or exemption must be requested from DUF6 in writing and approval granted in writing.

    g. On an annual basis, or as otherwise reasonably requested by DUF6, the Subcontractor shall review and update, for DUF6 approval, its safety performance objectives, performance measures, and commitments consistent with and in response to DUF6 program and budget execution guidance and direction. Subcontractor shall identify and allocate sufficient resources to meet the safety objectives and performance commitments as well as maintain the integrity of the entire ES&H Program. Accordingly, the ES&H Program and costs associated with maintaining it shall be integrated into the Subcontractor’s business processes, including, but not necessarily limited to, work planning, budgeting, authorization, execution, and change control.

    h. Subcontractor shall maintain the current year OSHA 300 Log and Summary at DUF6. DUF6 strives to work with companies that maintain and EMR <1.0 and a Total Recordable Case Rate or <1.0

    i. The Subcontractor shall comply with all identified technical work documents and assist DUF6 in complying with ES&H requirements, all applicable laws, regulations, and DOE directives. The Subcontractor shall cooperate with federal and nonfederal agencies having jurisdiction over ES&H matters under this Subcontract.

    j. Environmental Compliance - The Subcontractor shall comply with all applicable environmental protection laws, Executive Orders, ordinances, regulations, directives, and codes. The Subcontractor shall adhere to the applicable environmental regulations as delineated in the Statement of Work. 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 compliance.

k. Radiological Control Compliance – The Subcontractor 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 Subcontractor shall adhere to the applicable radiological control as delineated in the Statement of Work. 10 CFR 835, *Occupational Radiation Protection* and other DOE contractual radiological control requirements flow down to Subcontractors All Subcontractor personnel shall conform to applicable DUF6 and area specific radiological control rules and procedures.

The Subcontractor moving any nonexempt sealed radioactive source and/or radiation-generating devices to or from DUF6 shall include in the radiological control plan specific methods, operational procedures, and person responsible for appropriate regulatory compliance.

Additionally, the subcontractor will comply with the following radiological control practices, as applicable to their scope of work:

- Only tools / equipment / vehicles that are necessary will be brought into the fenced area. All non-essential tools, equipment and vehicles should remain outside the fenced area.
- MCS Safety will inspect all essential subcontractor tools and equipment prior to start of initial work. This applies to first-use of tools/equipment brought on site.
- MCS Radiological will evaluate and perform an incoming radiological verification survey on essential tools, equipment, and vehicles to ensure no radioactive materials are present prior to the start of work.
- Essential tools and equipment must generally stay on-site during the work scope. Upon completion of work, all tools, equipment, and vehicles will be evaluated for radiological release and an outgoing verification survey will be performed as determined necessary to ensure no residual radioactive materials are present. IF equipment must leave site early, THEN coordinate with the STR prior to removal.
- Vehicles brought into the Site to drop off / pick up tools /equipment should be removed maintained in the parking lot when not in use.
- Vehicles that must be brought into the fenced area and maintained at the job site during work activities are subject to radiological evaluation/survey/proper approvals for release.
- Radiological evaluation and survey of tools, equipment, and vehicles subject to release survey requirements may take up to three business days to obtain release.
- Subcontractors and STRs must contact MCS ES&H in advance to bringing tools, equipment, and vehicles into the fenced area to discuss the above-mentioned safety / radiological controls and potential measures to reduce release impacts.

l. Compliance to Federal, State, and Local Regulations - All subcontract personnel on DUF6 property shall comply with the requirements of 10 CFR 851; DOE Orders 225.1B; 231.1B, Change I; and 420.1C 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.

m. 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 Subcontractor personnel shall conform to applicable DUF6 and/or specific occupational safety and health rules and procedures as delineated in Statement of Work.

n. The Subcontractor shall regularly inspect the workplace to ensure compliance to these standards and immediately correct any identified deficiencies.

o. All DUF6 subcontractors working on-site will work under DUF6's approved Worker Safety and Health program unless a written variance or exemption is issued to the subcontractor by DUF6. The contract between DUF6 and the subcontractor will contain specific contract scope, applicable worker safety and health requirements, and other terms and conditions.

p. Safety and Health Training shall ensure supervisory responsibilities include ensuring compliance to OSHA, DOE, and State specific OSHA mandated training requirements, where applicable, to include but not limited to, hearing conservation, respiratory protection medical clearances/fit testing/training, crane operator's certification, and hazard communication, as applicable.

q. The Subcontractor shall promptly evaluate and resolve any noncompliance with applicable ES&H requirements. 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, DUF6 may issue an order stopping work in whole or in part. Any stop work order issued by DUF6 under DUF6 Form 9063, 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 DUF6. In the event that DUF6 issues a stop work order, an order authorizing the resumption of the work may be issued at the discretion of DUF6. The Subcontractor shall not be entitled to an extension of time or additional fee for damages because of, or in connection with, any work stoppage order in accordance with this Clause.

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

    1. 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, Worker Safety and Health Program, and Integrated Safety Management (ISM) DOE Acquisition Regulation (DEAR) clause. The prime subcontractor is responsible for ensuring that these requirements are flowed down to their lower tier subcontractors. DUF6 will hold the prime contractor responsible for the performance of the lower tier subcontractors in adhering to the requirements spelled out in these terms and conditions as well as the identified technical work documents.

    2. The Subcontractor shall include a clause substantially the same as DUF6 Form 9063 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 DUF6 Form 9063. Depending on the complexity and hazards associated with the work, the Subcontractor may require that the lower-tier subcontractor(s) submit an ES&H plan for the DUF6's review and approval.

    3. The Subcontractor shall include in all of its lower-tier subcontracts involving performance of work at the site, the provisions of Section D. 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.

s. Injury/Illness and/or Off-Normal Occurrence Reporting—All occupational injuries/illnesses of Subcontractor employees, off-normal occurrences including property/equipment damage, and injuries or near miss-type incidents shall be reported immediately to the Plant Shift Supervisor for emergency situations. All NON-emergency situations will be reported to the Subcontract Technical Representative. The subcontractor shall investigate and take corrective action to prevent recurrence. Copies of incident/injury/illness reports must be submitted to the Site ES&H Organization. The Subcontractor shall participate in critiques and in investigations, as appropriate.

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

u. The Subcontractor will report all hours worked on the DUF6 project to their STR. The hours shall be reported at the completion of the job, or at the end of each month, whichever comes first."

Attachment A, List of Acronyms/Definitions

AHA	Activity Hazard Analysis
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
BMP	Best Management Plan – usually associated with environmental- waters
CFR	Code of Federal Regulations
DEAR	Department of Energy Acquisition Regulation
DOE	Department of Energy
DOT	Department of Transportation
DUF6	Depleted Uranium Hexafluoride Project
ECP	Environmental Compliance Plan
EMR	Experience Modification Rate **–** (insurance term associated with workers compensation based upon injury record and type of industry)
ES&H	Environmental Safety and Health
FAR	Federal Acquisitions Regulations
FRS	Family Radio Service
GFCI	Ground Fault Circuit Interrupter
ISMS	Integrated Safety Management System
LEV	Local Exhaust Ventilation
KY	Kentucky (abbreviation)
LOTO-LO/TO	Lockout/Tagout- hazardous energy control program
MCS	Mid-America Conversion Services
NAMs	Negative Air Machines (an air suction device with filter(s) used as a LEV)
NFPA	National Fire Protection Association
OH	Ohio (abbreviation)
OSHA	Occupational Safety and Health Administration
PGDP	Either the Paducah or Portsmouth Gaseous Diffusion Plant site, as applicable
PIT	Powered Industrial Truck
PLN	Plan (DUF6/MCS Plan-higher order document than a plan or procedure)
POL	Policy (DUF6/MCS Policy-higher order document than procedure)
PPE	Personal Protective Equipment
PPO	Portsmouth Paducah Project Office (DOE Field Office responsible for Paducah's and Portsmouth's Activities
STD	Standard – usually a DOE Standard (DOE-STD-#)
SRL	Self-Retracting Lifeline (device used in fall protection)
STR	Subcontractor Technical Representative
SWPPP	Storm Water Pollution Prevention Plan
WSHP	Worker Safety and Health Program – usually associated with 10 CFR 851

Attachment B: MCS Environmental Safety and Health Policy (DUF6-POL-060)

1 INTRODUCTION

This policy was developed to ensure the safety and health of every worker, the public, and the environment. This is the way Mid-America Conversion Services, LLC (MCS) achieves its mission. It is paramount in all that we do. We maintain a safe workplace and conduct our work to prevent and eliminate hazards. We protect the environment not only by complying with applicable requirements, but also striving to continuously improve. We expect everyone on our site – employee, contractor, or visitor – to take personal responsibility for their actions, to hold to the same high standards.

1.1 We Expect that Every Employee, Contractor, and Visitor:

- Is responsible for their own safety and the safety of others.
- Is committed to an accident and injury free workplace.
- Acknowledges that people are fallible, and even the best make mistakes.
- Actively anticipates and communicates error-likely situations and failed defenses.
- Does not perform or permit an unsafe act.
- Has the responsibility and authority to stop unsafe acts.
- Encourages and reinforces the safe behavior of others.
- Makes these commitments part of every day at work, home, and play.

1.2 In Support of this Policy, We Pledge:

- To foster and maintain a work environment of mutual respect and teamwork that encourages free and open expression and Environment, Safety, & Health (ES&H) programs.
- To ensure direct, open and truthful communication of this policy and our ES&H performance.
- To continuously work to provide a clean and efficient workplace, free of occupational injuries and illnesses.
- To integrate ES&H into our business processes for work planning, budgeting, authorization, execution, and change control in accordance with our Integrated Safety Management System (ISMS).

Attachment B: MCS Environmental Safety and Health Policy (DUF6-POL-060)

- To integrate environmental and safety requirements into the work steps of maintenance work packages and operating procedures
- To continuously improve our processes and systems by establishing, tracking, and achieving goals and incorporating lessons learned to drive performance excellence.
- To comply with all Federal, State, and local environmental laws and regulations.
- To minimize the impact of our operations on the environment by using sustainable practices for energy and water efficiency, pollution prevention, recycling/reuse, source reduction, resource conservation, and environmentally preferable purchasing.
- To manage the operational controls that limit environmental impacts and improve sustainability through an Environmental Management System.

Attachment C: List of Workplace Safety and Health Requirements*

(as applicable to the subcontractor's scope of work)

29 CFR 1910, *Occupational Safety and Health Administration*

29 CFR 1926, *Safety and Health Regulations for Construction*

10 CFR 835, *Occupational Radiation Protection Program*

10 CFR 830, *Nuclear Safety Management*

The following requirements from 10 CFR 851.23 and 10 CFR 851.27 when applicable to work performed at DUF6 sites, will be strictly adhered to:

1. American Conference of Governmental Industrial Hygienists (ACGIH®), ‘‘Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices,’’ (2016) (incorporated by reference, see § 851.27) when the ACGIH® Threshold Limit Values (TLVs) are lower (more protective) than permissible exposure limits in 29 CFR part 1910 for general industry and/or part 1926 for construction. When the ACGIH TLVs are used as exposure limits, contractors must nonetheless comply with the other provisions of any applicable expanded health standard found in 29 CFR part 1910 and/or part 1926.
2. ANSI Z49.1-2012, American National Standard Safety in Welding, Cutting and Allied Processes, sections 4.3 and E4.3.
3. ANSI/ASSE Z88.2-2015, American National Standard Practices for Respiratory Protection.
4. ANSI Z136.1-2014, American National Standard for Safe Use of Lasers.
5. American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (BPVC)-2015, 2015 edition.
    (a) ASME BPVC.I-2015, Section I—Rules for Construction of Power Boilers;
    (b) ASME BPVC.II.A-2015, Section II—Materials, Part A—Ferrous Material Specifications (Beginning to SA-450);
    (c) ASME BPVC.II.A-2015, Section II—Materials, Part A—Ferrous Material Specifications (SA-451 to End);
    (d) ASME BPVC.II.B-2015, Section II—Materials, Part B—Nonferrous Material Specifications;
    (e) ASME BPVC.II.C-2015, Section II—Materials, Part C—Specification for Welding Rods, Electrodes, and Filler Metals;
    (f) ASME BPVC.II.D.C-2015, Section II—Materials, Part D—Properties (Customary);
    (g) ASME BPVC.II.D.M-2015, Section II—Materials, Part D—Properties (Metric);
    (h) ASME BPVC.III.A-2015, Section III—Rules for Construction of Nuclear Facility Components, Appendices;
    (i) ASME BPVC.III.1.NB-2015, Section III—Rules for Construction of Nuclear Facility Components, Division I—Subsection NB, Class 1 Components;
    (j) ASME BPVC.III.1.NC-2015, Section III—Rules for Construction of Nuclear Facility Components, Division I—Subsection NC, Class 2 Components;
    (k) ASME BPVC.III.1.ND-2015, Section III—Rules for Construction of Nuclear Facility Components, Division I—Subsection ND, Class 3 Components;
    (l) ASME BPVC.III.1.NE-2015, Section III—Rules for Construction of Nuclear Facility Components, Division I—Subsection NE, Class MC Components;
    (m) ASME BPVC.III.1.NF-2015, Section III—Rules for Construction of Nuclear Facility Components, Division I—Subsection NF, Supports;

Attachment C: List of Workplace Safety and Health Requirements*

(n) ASME BPVC.III.1.NG-2015, Section III—Rules for Construction of Nuclear Facility Components, Division I—

(o) ASME BPVC.III.1.NH-2015, Section III—Rules for Construction of Nuclear Facility Components, Division I—Subsection NH, Class 1 Components in Elevated Temperature Service;

(p) ASME BPVC.III.NCA-2015, Section III—Rules for Construction of Nuclear Facility Components, Subsection NCA, General Requirements for Division 1 and Division 2;

(q) ASME BPVC.III.2-2015, Section III—Rules for Construction of Nuclear Facility Components, Division 2, Code for Concrete Containments;

(r) ASME BPVC.III.3-2015, Section III—Rules for Construction of Nuclear Facility Components, Division 3, Containment for Transportation and Storage of Spent Nuclear Fuels and High Level Radioactive Material and Waste;

(s) ASME BPVC.III.5-2015, Section III—Rules for Construction of Nuclear Facility Components, Division 5, High Temperature Reactors;

(t) ASME BPVC.IV-2015, Section IV, Rules for Construction of Heating Boilers;

(u) ASME BPVC.V-2015, Section V, Nondestructive Examination;

(v) ASME BPVC.VI-2015, Section VI, Recommended Rules for the Care and Operation of Heating Boilers;

(w) ASME BPVC.VII-2015, Section VII, Recommended Guidelines for the Care of Power Boilers;

(x) ASME BPVC.VIII.1-2015, Section VIII—Rules for Construction of Pressure Vessels, Division 1; ☐

(y) ASME BPVC.VIII.2-2015, Section VIII—Rules for Construction of Pressure Vessels, Division 2, Alternative Rules;

(z) ASME BPVC.VIII.3-2015, Section VIII—Rules for Construction of Pressure Vessels, Division 3, Alternative Rules for Construction of High Pressure Vessels;

(aa) ASME BPVC.IX-2015, Section IX—Welding, Brazing and Fusing Qualifications, Qualification Standard for Welding, Brazing, and Fusing Procedures; Welders; Brazers; and Welding, Brazing, and Fusing Operators;

(bb) ASME BPVC.X-2015, Section X, Fiber-Reinforced Plastic Pressure Vessels;

(cc) ASME BPVC.XI-2015, Section XI, Rules for In-service Inspection of Nuclear Power Plant Components;

(dd) ASME BPVC.XII-2015, Section XII, Rules for Construction and Continued Service of Transport Tanks;

(ee) ASME BPVC.CC.BPV-2015, Code Cases, Boilers and Pressure Vessels; and

(ff) ASME BPVC.CC.NC-2015, Code Cases, Nuclear Components.

6. ASME B31.1-2016, Power Piping, ASME Code for Pressure Piping.
7. ASME B31.3-2014, Process Piping, ASME Code for Pressure Piping.
8. ASME B31.4-2016, Pipeline Transportation Systems for Liquids and Slurries, ASME Code for Pressure Piping.
9. ASME B31.5-2016, Refrigeration Piping and Heat Transfer Components, ASME Code for Pressure Piping.
10. ASME B31.8-2016, Gas Transmission and Distribution Piping Systems, ASME Code for Pressure Piping.
11. ASME B31.8S-2014, Managing System Integrity of Gas Pipelines, ASME Code for Pressure Piping, B31, Supplement to ASME B31.8.
12. ASME B31.9-2014, Building Services Piping, ASME Code for Pressure Piping.
13. ASME B31G-2012, Manual for Determining the Remaining Strength of Corroded Pipelines, Supplement to ASME B31 Code for Pressure Piping.
14. National Fire Protection Association (NFPA) 70, National Electrical Code (2017 edition)
15. National Fire Protection Association (NFPA) 70E, Standard for Electrical Safety in the Workplace (2018 edition).

Attachment D, DUF6 Form 1389, *Chemical Procurement Form*

DUF6	Chemical Procurement Form

Submitted By:	Phone:	Date:
This Form Applies To The Following Chemicals:		

Potential Reviewers	Question	Yes	No	N/A
Nuclear Safety Manager	Is the chemical to be procured identified as Safety Significant?	☐	☐	
	Does the chemical to be procured have the potential to impact SS items?	☐	☐	
ES&H Manager	Is the chemical a hazardous material?	☐	☐	
	Is a non-hazardous or less hazardous substitute available?	☐	☐	
	Does the chemical to be procured reside on the banned chemical list?	☐	☐	
WM&T Manager	Can the hazardous material result in the generation of a RCRA or TSCA regulated waste?	☐	☐	☐
	Will the chemical to be procured affect the Waste Certification Program?	☐	☐	
Emergency Management	Will the chemical require additional screening in accordance with DUF6-C/X-SHP-0307?	☐	☐	

Approving Manager	Print	Sign	Date
Nuclear Safety Manager			
Environment, Safety & Health Manager			
WM&T Manager			

Upon completion of this checklist:

- If a chemical is to be a stock item, the requestor **shall** attach the approved DUF6 Form 1389 to the DUF6 Form 8200.
- If a chemical is a non-stock item, the requestor **shall** attach the approved DUF6 Form 1389 to the electronic purchase requisition **and shall** also attach any documentation needed for hazard communication, such as an SDS, to the purchase requisition.

DUF6 Form 1389, Rev. 1 (3/13/24)
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Attachment D, DUF6 Form 1389, *Chemical Procurement Form*

DUF6	Chemical Procurement Form

Approval for purchase is requested for the following chemical/product:	
Product Trade Name:	
CAS Number:	
Type (e.g., Paint, Lubricant, Gas):	
Product Manufacturer:	
Manufacturer's Address:	
Telephone:	
Special Storage / Use Controls?	Yes ☐ No ☐
Process where chemical will be used:	

Note: The applicable SDS(s) shall be attached to this form prior to submitting for approval.

Area of Use	Storage Area	Expected Amount Used Annually

Review / Approval	Print	Sign	Date
Supervisor Requesting Chemical			
Facility Manager Where Chemical Used			
Waste Management			
Emergency Management			
Plant Manager (If MCS banned chemical)			

DUF6 Form 1389, Rev. 1 (3/13/24)
Page 2 of 2

Attachment E, Subcontractor Senior Leadership's Commitment to Adhere to 10 CFR 851, Worker Safety and Health Program

SUBCONTRACTOR SENIOR LEADERSHIP'S COMMITMENT TO ADHERE TO 10 CFR 851, WORKER SAFETY AND HEALTH PROGAM

COMPANY NAME will follow the DUF6 Project Worker Safety and Health Plan (WSHP), *DUF6-U-PLN-074*, as well as the DUF6 Integrated Safety Management System Program (ISMS), *DUF6-U-PLN-040,* as identified in the Pre-Bid references contained in DUF6 Form 9063, *ES&H Special Terms and Conditions*. The ES&H Special Terms and Conditions was included in the bid solicitation and is a requirement for bid awarding.

Additionally, all lower tier COMPANY NAME subcontractors will follow these requirements. These requirements will be flowed to lower tier subcontractors in order to successfully implement an effective 10 CFR 851 Worker Safety and Health Program.

The overall COMPANY NAME site leader will be INDIVIDUAL's NAME. INDIVIDUAL's NAME will be the COMPANY NAME ES&H Leader ensuring overall contract requirement compliance including those associated with WSHP and ISMS implementation.

INDIVIDUALs' NAME(s) qualifications are attached to this letter which describe qualifications and successful field leadership including those associated with WSHP/ISMS implementation ensuring that all accidents are preventable.

COMPANY NAME has reviewed the Mid-America Conversion Services, LLC (MCS) Work Package (WORK PACKAGE #) and associated hazard control identification checklist (HCIC) documentation, including but not limited to, HCIC NUMBER. COMPANY NAME reviewed and committed to the Work Package and associated technical work documents by signing the appropriate places in the Work Package.

Finally, all COMPANY NAME and/or COMPANY NAME subcontractor personnel will be qualified/trained to perform their tasks, that all accidents are preventable, and that everyone has "stop work authority".

All personnel will review the associated Technical Work Documents including the Hazard Analysis and be informed that any previously unrecognized hazards or hazards for which the identified controls maybe inadequate must be reported IMMEDIATELY upon discovery.

If COMPANY NAME is unable to correct the uncontrolled hazard, then the DUF6 Project Subcontractor Representative (STR) must be notified immediately. No one is to perform work for which a hazard is uncontrolled.

Sincerely;

COMPANY NAME

INDIVIDUAL's NAME Senior Officer

END OF DOCUMENT