

SUPPLEMENTAL TERMS AND CONDITIONS – ON-SITE SERVICES

Power Generation

Outages, Projects, and Station Suppliers ONLY

Rev. 17.1, March 6, 2019

These Supplemental Terms and Conditions – On-Site Services, Power Generation – Outages, Projects, and Station Suppliers ONLY (“Supplemental Terms and Conditions”) are incorporated into the Agreement to which they are attached. These Supplemental Terms and Conditions apply to Supplier Personnel whenever Supplier Personnel have physical access to Purchaser’s Premises. Supplier shall be liable for any breach of these Supplemental Terms and Conditions by Supplier Personnel. Unless otherwise noted, it is Supplier’s responsibility to perform all tasks and ensure conformance with all provisions set forth below. Unless otherwise expressly provided by a provision of the Agreement that takes precedence over these Supplemental Terms and Conditions, Supplier’s obligations to comply with the terms hereof shall be at Supplier’s expense.

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Part One – Definitions

All capitalized terms herein, unless otherwise defined below, have the meaning ascribed to them in the Agreement.

(a) “Environmental Laws” means any and all applicable federal, foreign, state, and local laws, treaties, ordinances, codes, rules and regulations, judgments, decrees, injunctions, writs and orders, in effect from time to time, of any arbitrator or governmental authority, including all Environmental Permits, industry codes and standards, and all other generally recognized building and safety standards governing performance of the Work relating to actual or potential effects on human health, wildlife, safety, or the environment of the activities under this Agreement, the disposal of materials, the discharge or release of chemicals, gases, or other substances or materials into the environment, or the presence of such materials, chemicals, gases, or other substances including the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 et seq.; the Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. Section 136 et seq.; the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901, et seq.; the Toxic Substances Control Act, 15 U.S.C. Section 2601 et seq.; the Clean Air Act, 42 U.S.C. Section 7401 et seq.; the Federal Water Pollution Control Act, 33 U.S.C. Section 1251 et seq.; the Oil Pollution Act, 33 U.S.C. Section 2701 et seq.; the Endangered Species Act, 16 U.S.C. Section 1531 et seq.; the Migratory Bird Treaty Act, 16 U.S.C. Section 703 et seq.; the Bald and Golden Eagle Protection Act, 16 U.S.C. 668 et seq.; the National Environmental Policy Act, 42 U.S.C. Section 4321 et seq.; the Occupational Safety and Health Act (“OSHA”), 29 U.S.C. Section 651 et seq.; the Homeland Security Appropriations Act of 2007, 109 P.L. 295; 120 Stat. 1355; the Hazardous Materials Transportation Act, 49 U.S.C. Section 5101 et seq.; the Safe Drinking Water Act, 42 U.S.C. Section 300f et seq.; Emergency Planning and Community Right-to-Know Act, 42 U.S.C. Section 11001 et seq.; and their state, tribal, and local counterparts or equivalents and regulations issued pursuant to any of those statutes.

(b) “Environmental Permits” means all permits, licenses, approved plans, contracts, filings, authorizations or approvals required by or entered into with any governmental authority in connection with the proper conduct, performance, and completion of the Work required by Environmental Laws including but not limited to all air emission permits, water discharge permits, land disturbance permits, erosion and sediment control permits, storm water management permits and wetlands permits.

(c) “Hazardous Waste” means any and all “hazardous waste,” as defined in any Environmental Laws.

(d) “Non-Hazardous Waste” means any “solid waste,” “residual waste” or other waste that is not a “Hazardous Waste” as those terms are defined under Environmental Laws.

(e) “Person” means an individual, partnership, corporation, company, Limited Liability Company, business trust, Joint Stock Company, trust, unincorporated association, joint venture, or other entity.

(f) “Personnel” means with respect to a Person, the Personnel, officers, directors, agents, representatives, partners, consultant, engineers, invitees, subcontractors and vendors of (i) such Person, (ii) any Affiliates, or (iii) any of its subcontractors or vendors of any tier.

(g) “Purchaser’s Environmental Compliance Coordinator” means the individual designated by Purchaser for environmental compliance matters.

(h) “Purchaser’s Premises” means any property, project site or facility owned or controlled by Purchaser or any of its Affiliates.

(i) “Purchaser Project Safety Representative” means the individual designated by Purchaser as the primary point of contact for safety related communications for Purchaser.

(j) “Safety Data Sheet” or “SDS” means the documentation provided to Purchaser containing information on potential hazards and how to work safely with a chemical product on the Project Site.

(k) “Supplier Personnel” means Supplier and Subcontractors, and Supplier’s and Subcontractors’ personnel and visitors.

(l) “Supplier Project Safety Representative” means individual identified by Supplier as its point of contact for safety related communications for Supplier.

(m) “Supplier Safety Data Sheets” has the meaning set forth in Part Two (Safety and Other On-site Requirements), Section 2 (General) of these Supplemental Terms and Conditions.

Part Two – Safety and Other On-site Requirements

1. Scope and Regulatory Requirements

The safety and other on-site requirements in these Supplemental Terms and Conditions are not all-inclusive, and are intended to supplement, not supplant, the safety requirements contained in (a) federal, state, and local laws, regulations, rules, orders, and ordinances, (b) Supplier’s own safety requirements, (c) the safety requirements of any Subcontractor, or (d) any additional site-specific safety requirement provided by Purchaser (the safety requirements contained in (a), (b), (c), and (d) above are jointly the “Safety Requirements”). Purchaser reserves the right to include applicable sections from the Purchaser Safety Resource Manual in this contract when necessary. In the event of any conflict among the provisions of the Safety Requirements or between the Safety Requirements and the Purchaser Safety Resource Manual, Supplier shall abide by the most stringent provision.

2. General

- A. Supplier shall develop a process to track and trend safety performance of Supplier Personnel during all phases of Work. Suppliers shall have responsibility to include tracking of safety performance data for all Subcontractors under their direction as well.
- B. Safety data that shall be tracked includes, but is not limited to:
 - i. First aid/OSHA recordable cases (Days away/restricted/transfer, Medical Treatment, Work Related illnesses);
 - ii. Near miss events;
 - iii. Property damage events;
 - iv. Safety violations; and
 - v. Any site safety inspection data obtained by Supplier or their Subcontractors.

- C. Supplier shall review the findings of safety performance with Purchaser at meetings upon request.
- D. Supplier shall notify Purchaser immediately of any safety or health hazards discovered by Supplier Personnel prior to or during progress of work and Supplier shall implement controls to correct or rectify any safety deficiencies. Furthermore, at Purchaser's request, Supplier shall inform Purchaser in writing (*which shall include providing Purchaser with a digital copy of a "lessons learned" presentation*) and/or via a formal "in person" meeting of corrective actions taken to eliminate or control hazards identified by Purchaser representatives or regulatory agencies.
- E. Supplier shall provide Purchaser's Project Safety Representative or his/her designee with a copy of Supplier's "Site-Specific Safety Manual" for comments and review before ANY work can start. Furthermore, Supplier shall provide Purchaser's Project Safety Representative or his/her designee with a copy of each Subcontractor's "Site-Specific Safety Program" before such Subcontractor begins ANY work. Any changes to Supplier's or its Subcontractor's "Site-Specific Safety Programs" shall be submitted and discussed with Purchaser prior to ANY further work on the project.
- F. All Supplier site supervision is to keep Purchaser project leads fully informed of anything that affects safety, environmental compliance, scope, cost, schedule, or any other issues that might affect the success of the project.
- G. Supplier shall ensure that safety reviews of any and all Subcontractors (*including temporary agency Personnel of contractors*) are performed and shall verify, to the best of Suppliers' knowledge, Supplier safety data sheets ("Supplier Safety Data Sheets") are accurately filled out and provide the requested documentation and information. Supplier Safety Data Sheet information shall be submitted to Purchaser's Project Safety Representative or his/her designee for review.
- H. Supplier Safety Data Sheets submitted for review shall detail the following information:
 - i. Demonstrate that Supplier/Subcontractor has a written safety and health program.
 - ii. An Experience Modification Rate (EMR) of 1.0 or less for the current and each of the past three (3) years.
 - iii. An OSHA Recordable Incidence Rate (RIR) of 4.0 or less for the current and each of the past three (3) years.
 - iv. An OSHA Recordable Days Away, Restricted or Transferred (DART) Rate of 3.0 or less for the current and each of the past three (3) years.
 - v. Haven't been issued any Serious, Willful, or Repeat OSHA citations during the current year or past three (3) years. Supplier shall utilize OSHA.gov establishment search to verify citation information.
 - vi. No work related fatalities during the current year or past three (3) years.
- I. If it is not possible to secure a bid from a Supplier and/or Subcontractor meeting the above safety criteria, or there is special circumstance that should be considered, written approval from the Purchaser Business Unit Vice-President shall be required prior to awarding the bid. Prior to being awarded a contract, Supplier not meeting these minimum requirements must complete the following:

- i. Must meet with Purchaser Power Generation Leadership (Director or higher) and Power Generation Safety Management to discuss how they shall execute establishing an effective safety culture.
- ii. Must submit a formal recovery plan addressing how they shall rectify past performance issues and ensure the safety of their Personnel, other workers and the general public while working for Purchaser.
- iii. Could be required to provide additional safety coverage, or additional safety initiatives while performing the work.
- iv. Shall submit the name of their case manager that shall be responsible for that site, and also a full, site-specific case management plan. This case manager shall be responsible for accompanying any and all medical visits. This shall include Subcontractors. An approved designee shall be required whenever the case manager is not on-site.
- v. Purchaser reserves the right to reject any element of, or all of, a submitted safety recovery plan if identified elements of the plan do not meet the stated requirements contained within this Agreement.

3. Safety Orientation/Safety Review

- A. Purchaser shall develop and conduct a site-specific safety orientation for all of Supplier Personnel and Subcontractor personnel prior to commencing Work. The orientation shall cover safe work practices, emergency response procedures, and the parts of these Supplemental Terms and Conditions that apply.
- B. Supplier shall provide an interpreter to translate into the language of non-English speaking Personnel. Supplier shall bear the cost of providing non-English speaking training Personnel for translating.
- C. All Supplier Personnel completing the site-specific safety orientation shall be issued a hard hat decal provided by the Purchaser. The decal provided shall specify the date of orientation. Orientations shall be tracked and repeated at least annually. A list of all orientations is required to be kept on-site.
- D. Supplier shall conduct a review of these Supplemental Terms and Conditions with all Suppliers' site management/supervision prior to commencing the work and with its Subcontractors prior to the commencement of each Subcontractor's work. Supplier shall conduct orientation for on-site Purchaser Personnel and Purchaser subcontractors unless agreed to otherwise. Supplier shall provide signed documentation, in a format similar to Attachment 1, of the review(s) to Purchaser.
- E. Supplier shall open all progress meetings with a safety moment or a status review of recent safety performance and activities. Subcontractor safety performance and activities shall be included in such meetings.

4. Pre-Job/Mid-Shift/Post Job (Safety) Briefings

- A. "Pre-Job Briefings" are required to be conducted at the beginning of each work shift and as conditions warrant (i.e. change in job scope or job activities during task) in order to ensure that safe work practices are being followed. If requested by Purchaser, Supplier will provide the time/location of the Pre-Job Briefing to Purchaser to allow Purchaser personnel to attend.

- B. “Mid-Shift Briefings” are required to be conducted after lunch or mid-shift (whichever is applicable based on working conditions)
- C. Pre-Job and Mid-Shift Briefings shall cover, at a minimum:
- i. Training, knowledge, and familiarity with the Work;
 - ii. Work procedures;
 - iii. Hazards associated with the Work;
 - iv. Energy source control (i.e. Lock Out/Tag Out of equipment);
 - v. Personal Protective Equipment requirements for the Work;
 - vi. Special precautions;
 - vii. Special permits (confined space, welding and flame, rigging, drilling/digging/cutting, asbestos and lead);
 - viii. Access to and egress from the Work area;
 - ix. Housekeeping; and
 - x. Stop when unsure.
- D. To conduct an effective Pre-Job/Mid-Shift Briefing, the following steps shall be utilized:
- i. All Supplier Personnel involved with the Work activity are assembled.
 - ii. Supplier Personnel shall discuss the Work activity to be performed. For a Pre-Job or Mid-Shift Briefing, the briefing process shall include a job/work site visit first; with completion of a documented Pre-Job Briefing conducted in a designated meeting location among Supplier Personnel. Supplier shall solicit and include feedback from Personnel on job hazards and additional safety related discussion. Review of this feedback shall be included in the Pre-Job/Mid-Shift and Post-Job Briefing discussions.
 - iii. Supplier Personnel, during the site visit, shall identify any potential safety issues or deficiencies that may be present at the job site and resolve outstanding issues with supervision (as necessary) prior to beginning or resuming Work.
 - iv. Supplier/Subcontractor supervisor or lead craftsman for the task completes the appropriate information (when applicable) on the Pre-Job, Mid-Shift and Post-Job Briefing form. Suppliers shall provide Supplier Personnel a copy of the Pre-Job/Mid-Shift Briefing form which shall be made available at the job site for review. Supplier Personnel shall return the form to supervision for filing at the completion of the task.
- E. If a shift change occurs, or at the start of a new Work day, an additional Pre-Job Briefing is necessary.
- F. If any changes occur in the Work assignment which may affect the immediate safety of Supplier Personnel conducting the Work, an additional briefing shall take place. Examples of changes in

Work assignment include, but are not limited to: equipment malfunction, an employee completing an assignment they have not completed before, an employee using a tool or piece of equipment they have not used before, material not fitting together as planned, so changes to the task are required, and any change from the way the operation was originally planned.

- G. All Supplier Personnel involved with a specific Work task shall assemble and conduct a Post-Job Briefing. This shall be conducted for all high hazard and infrequent tasks conducted during the course of Work to ensure any lesson learned or additional information previously unknown is captured for use with future task evolutions. Pre Job/Mid-Shift and Post-Job Briefings shall be documented and shall be provided in the employee's primary spoken language. (See attachments 5a & 5b.)
- H. The Supervisor/Team Member ensures the comments are documented in the Post-Job Briefing section of the Pre-Job Briefing form and a copy of the comments submitted the appropriate project Personnel for follow up action.
- I. Pre-Job and Mid-Shift Briefing sheets shall be submitted to Supplier's Project Safety Representative for review. Supplier's Project Safety Representative shall review each form for completeness of information and shall evaluate quality of briefings by periodic observations of active briefings in the field. These reviews should be conducted with the Purchaser's Project Safety Representative so that both representatives can review and develop feedback for briefing improvement. Personnel observing briefings shall include verbal feedback to include a review of strengths and areas of improvement in briefing delivery and quality as required.

5. Accident/Incident and Near Miss Reporting/OSHA and Regulatory Visits

- A. Supplier shall report immediately by phone or verbally to Purchaser's Project Safety Representative all accidents or incidents involving Supplier Personnel that result in injury, near misses, or property damage. Supplier shall provide an e-mail notification to Purchaser's distribution list as soon as possible post event.
- B. Supplier shall submit a first aid log to Purchaser's Project Safety Representative at the end of each Work week. *A first aid case, for the purposes of this Agreement, is defined as any injury that requires Supplier Personnel be brought in for Suppliers' first aid administrator to review, (i.e., a bee sting or pulled muscle).* First aid events may receive no treatment; however, a review in the manner stated above shall still constitute a notification of a first aid event to Purchaser.
- C. Supplier shall immediately report to the Purchaser's Project Safety Representative the following:
 - i. Any injury that has the potential to become an OSHA recordable event;
 - ii. Any change in the reported status of a prior injury event changes (i.e. first aid case is evaluated and determined to be an OSHA recordable injury or vice versa); and
 - iii. Any injury/illness resulting in a lost time, hospitalization, amputation, loss of an eye or a fatality.
- D. Supplier shall report to Purchaser any incident that involves the following:
 - i. Property damage.

- ii. Vehicles.
- iii. Spills of fluids, chemicals, oil, etc.
- iv. A fire on Purchaser's Premises.

Note: It is Purchaser's expectation that any first aid events, property damage and near miss events shall be reported to Purchaser representation immediately upon occurrence (verbally and via email), but no later than the end of the shift during which the event occurred.

- E. In addition to the immediate notification requirements set forth in items A through D of this Section, Supplier shall report all injuries and property damage using the Purchaser Accident/Incident Report Form and submit the Form to the Purchaser's Project Safety Representative within 48-hours of the event.
- F. Supplier shall inform Purchaser, in writing, within 48-hours of what corrective actions have been implemented to prevent the reoccurrence of accidents, incidents or near-misses, as well as any disciplinary actions taken by Supplier against Supplier Personnel for safety violations.
- G. Supplier shall inform the Purchaser's Project Safety Representative immediately if OSHA, EPA, state, federal, and/or local authorities/regulatory agencies visit or inspect Purchaser's projects.
- H. Supplier shall review all incidents reported on-site and classify events based on instructions provided in Attachment 7 of this document. Purchaser shall validate the classification of all reported events according to guidance provided in Attachment 7. Purchaser shall notify Supplier, in writing, if Purchaser determines the classification of an injury event to be different than the classification provided by Supplier (example: Purchaser determines a first aid event to be an OSHA recordable).

6. Safety Inspections

- A. Supplier's Project Safety Representative shall spend a minimum of 70% of their time in the field performing safety observations, inspections, and coaching.
- B. Supplier shall perform and complete all relevant safety inspection forms daily and prior to use of mobile equipment (i.e., cranes, forklifts, man lifts, end loaders, dump trucks, backhoes, skid steers, dozers, vibratory rollers, track hoes, scrapers, aerial lifts, and scissor lifts).

7. Security

- A. General Policy. Purchaser may provide such security as it deems necessary and may specify to Supplier such additional security precautions and procedures to be followed by Supplier as Purchaser deems necessary for the safety and security of Purchaser's Personnel and property. Purchaser will not be liable or responsible for any loss or damage to Supplier's or its Subcontractors' tools and materials. Purchaser shall have full access to any of Supplier's on-site facilities.
- B. Restrictions. Purchaser prohibits the use, possession or sale of alcoholic beverages, illegal drugs, or other intoxicants ("Banned Substances") on Purchaser's Premises or in connection with the Work. Supplier Personnel shall not bring any Banned Substances onto Purchaser's Premises nor be

allowed to perform any Work while under the influence of Banned Substances. Furthermore, the abuse of prescription or non-prescription drugs that adversely affects any Person's ability to perform his or her duties is prohibited. Purchaser reserves the right to prohibit any Person that Purchaser's Personnel reasonably believe to be violating this policy from performing the Work and to exclude any such Person from Purchaser's Premises. Purchaser may notify law enforcement authorities of any suspected criminal violation concerning possession and use of Banned Substances. Furthermore, no firearms or unauthorized explosives are permitted on Purchaser's Premises, including parking areas. Supplier shall require Supplier Personnel performing the Work to comply with the policies set forth in this Section 7(B).

- C. Duty to Assist. Supplier shall assist Purchaser in carrying out all security measures and in reporting all information or knowledge of matters adversely affecting security to a representative designated by Purchaser ("Purchaser's Security Representative").
- D. Searches. Purchaser may search any Person and personal possessions brought onto Purchaser's Premises at any time. Such searches may be scheduled or unannounced and may include, but are not limited to, lockers, desks, lunchboxes, packages and motor vehicles (regardless of ownership) located on Purchaser's Premises. The results of such searches of Supplier Personnel may be reported to Supplier and to public authorities as Purchaser deems appropriate. Purchaser may deny access to Purchaser's Premises to any Person refusing such a search. Any items discovered, which in the opinion of Purchaser's Personnel appear to be prohibited, may be seized by Purchaser until Purchaser has determined to its satisfaction that the item in question is not prohibited. Supplier shall direct Supplier Personnel not to bring unnecessary personal property onto Purchaser's Premises.
- E. Duty to Publicize. Supplier shall ensure that Supplier Personnel are informed of and comply with Purchaser's security policies and instruct Supplier Personnel to cooperate in all applicable security measures including, without limitation, consent to searches.
- F. Purchaser Not Liable. Purchaser shall not be liable or responsible for any loss or damage to Supplier's or its Subcontractors' tools and materials. Purchaser shall have full access to any of Supplier's on-site facilities, including conexes, tool boxes, vehicles, truck beds, etc.
- G. Right to Deny. Purchaser reserves the right to deny access to anyone, at any time, for any reason. Supplier shall comply with these requests immediately. Supplier supervision not responding to these requests shall be denied access to Purchaser's Premises as well.

8. Access to Purchaser's Premises

- A. Logistics. Supplier management shall be responsible for providing Purchaser with logistical information, such as the number of Supplier Personnel expected, and the number of vehicles requiring site access. This information shall be provided to Purchaser's project lead prior to the start of the Work. Purchaser Personnel shall use the Purchaser-issued badge as their pass into the project site.
- B. Parking. If parking becomes an issue for Purchaser representatives and Personnel, Purchaser may request designated parking and passes to be required on the project. Parking shall be adequate for the number of Personnel that Purchaser and Purchaser's direct subcontractors require for the project. Purchaser Personnel shall use Purchaser issued badge as their pass into the project site unless a site requires additional identification in order to access the site.

- C. ID Required. All Persons requiring access to Purchaser's Premises must produce an official, valid, and current government-issued photo identification upon arrival. Failure to provide proper identification may result in denial of Supplier Personnel access to Purchaser's Premises at Supplier's expense.
- D. Site Access. Supplier shall only enter those parts of Purchaser's Premises to which access is required for performance of the Work. Supplier Personnel shall not enter any part of Purchaser's Premises without approval of Purchaser. Purchaser reserves the right, in its sole discretion and without notice or cause, to deny access to or expel from Purchaser's Premises any Person with no expense or cost in connection with the same to be charged to Purchaser.
- E. Vehicle Access. In addition to the provisions set forth in Section 48 - Motor Vehicles, Site Equipment, and Trailers, access to Purchaser's Premises for vehicles, machinery, and equipment is limited to those required to perform the Work. Vehicles owned or operated by Supplier Personnel and Supplier-owned vehicles ("Supplier Vehicles") not directly involved in the Work must be parked in the designated parking area. Access to Purchaser's Premises will be as designated by Purchaser's Security Representative. Purchaser vehicle passes may be required for Supplier Vehicle access to any of Purchaser's Premises. The pass shall be prominently displayed at all times, and may not be traded between vehicles. Vehicle passes will be approved on a case by case basis at the sole discretion of Purchaser. Supplier Personnel shall observe all speed limits, public or private. The on-site speed limit is 15 MPH unless otherwise posted.
- F. ID Badges. Purchaser may issue identification badges to Supplier Personnel as deemed appropriate by Purchaser for access to Purchaser's Premises. At the completion of the Work, or upon termination of any Supplier Personnel in connection with the Work, Supplier shall observe check out procedures for such Supplier Personnel and return all badges issued by Purchaser to such Supplier Personnel to Purchaser's Security Representative. At the completion of the Work or upon termination of any Supplier Personnel, Supplier shall, in conjunction with Purchaser site representation, perform a walk down of Supplier's Work area. The Work area shall be cleaned and materials removed before final payment shall be issued.
- G. Shift Schedule Approval. Supplier shall obtain approval of its proposed Work schedule of shifts per day, hours per shift, and number of days per week. If requested by Purchaser, Supplier shall complete timesheets, for total hours worked and total number of Supplier Personnel, on forms furnished by Purchaser. Such timesheets shall be prepared using appropriate Purchaser skill codes, if provided, and be submitted to Purchaser's representative on a daily basis for review and verification. Copies of such verified timesheets shall accompany Supplier invoices for the applicable invoice period. These can be estimated weekly and then trued up monthly if necessary.
- H. Purchaser Representative. Purchaser representative shall be on-site while Supplier is performing Work on Purchaser's Premises or approval to Work without a Purchaser representative shall be obtained from Purchaser. Any Work to be performed out-of-shift, on holidays, or weekends must be authorized in advance by Purchaser.
- I. Access Tracking. Supplier shall incorporate a means of keeping track of Supplier Personnel entering and exiting Purchaser's Premises and accounting for all Supplier Personnel at the end of their Work shift or if the Emergency Action Plan is activated.

9. Personal Protective Equipment (“PPE”)

- A. Any worker within ten (10) feet of an activity shall utilize the same PPE as required to perform that task. Lower levels over ten (10) feet may also require the same level of PPE if sparks and debris are falling below.
- B. Supplier shall implement the necessary controls in order to prevent injuries and illnesses. The protection shall be provided by Supplier in all cases.
 - i. Engineering controls are to be used when at all feasible to eliminate hazards and workplace exposure.
 - ii. Administrative controls shall be used when engineering methods are not feasible.
 - iii. Supplier shall use PPE to provide additional protection only when engineering and administrative controls are not sufficient or feasible.
- C. When tools are utilized at heights where Personnel working below the worksite are exposed to an overhead hazard, tool tethers shall be utilized on every tool to prevent them from falling to lower levels. Areas below elevated work shall also be barricaded with Danger barricade tape to prevent unauthorized entry.
- D. Purchaser shall require use of the following PPE in all work areas:
 - i. 100% eye protection (ANSI/ISEA Z87.1, Z87.2 (prescription) and Z87+ (high velocity impact)). Supplier Personnel are **required** to use close fitting safety glasses with 360 degree foam liners, minimizing space between glasses and the face. Supplier shall provide these for prescription wearers.
 - ii. Face shields, as described below, are required when cutting with saws, CAD welding (when not using a remote system), grinding, power washing, cleaning with compressed air or as the hazards of the job requires. These face shields shall be of the monogoggle w/built in face shield type (see Attachment for examples). Face shields shall conform to impact requirements (ANSI/ISEA Z87.1 Z87+ (high velocity impact)).
 - iii. Safety sunglasses are not permitted to be worn in buildings. Welders shall use close-fitting safety glasses with liners underneath their shields.
 - iv. Properly rated face shields with the proper shading shall be used for cutting activities. Goggles are not permitted.
- E. Foot Protection (ANSI Z41, ASTM F 2413-2005 is also acceptable).
 - i. Hard toed boots must cover the ankle.
 - ii. Rubber boots are required when working with concrete. Boots are to be sealed across the top (duct taped) to prevent exposure.
 - iii. Electricians shall utilize electrically rated boots.
- F. Head Protection (ANSI Z89.2).

- i. All Supplier Personnel shall use hard hats of a consistent color, to the extent possible, displaying their company logo and names to aid in the identification of Supplier Personnel. Supplier shall designate management Personnel by using a white hard hat (only supervision will wear white hard hats). Supplier shall provide the procedure used for color assignments to Purchaser.
- ii. Hardhats shall be worn forward at all times while performing work. The bill of the hardhat is designed to protect the face from falling objects.
- iii. Welders shall wear hard hats while welding. After removing the welding hood the hard hat shall be turned facing forward immediately. Soft band welding shields are not permitted; however, exceptions may be made by Purchaser's Project Safety Representative if the work space is tight or confined and requires the removal of the hard hat.
- iv. Hard hats shall only have project required stickers. Hard hats with unauthorized stickers or profanity shall be replaced upon Purchaser's request.
- v. All hard hats used on Purchaser premises must be electrically rated.

G. Hand Protection.

- i. Supplier shall select and use the appropriate personal protective equipment to protect against hand hazards such as:
 - Skin absorption of harmful substances.
 - Cuts or lacerations.
 - Abrasions.
 - Punctures.
 - Chemical burns.
 - Thermal burns.
 - Harmful temperature extremes.
- ii. Proper gloves, as demonstrated in the matrix below, shall be worn.

Exposure	Hand Protection
General Maintenance, Operation, Material Handling and Housekeeping Tasks	ANSI cut resistant A4 or greater. Note: For tasks involving the need for puncture resistant and impact resistant hand protection, up to and including general field work, gloves shall be evaluated and selected to protect against identified hazards.
Potential cut exposure, razor knives, sheet metal, picking up metal shavings.	360 degree ANSI Level A8 cut resistant. Where there is potential exposures to the arm above the

Exposure	Hand Protection
	cuff of the glove also use 360 degree Level A7 cut resistant sleeves.
Temperature Extremes	Nomex or Lined Kevlar
Chemicals	Review Safety Data Sheet for appropriate glove selection.
Bodily Fluids	Nitrile or Latex
Welding and Burning Operations	Regular welding gloves and long sleeves.
Electrical	Refer to rubber goods requirements (Section 18)
Concrete Work	Cuff shall be sealed with duct tape to prevent concrete burns.

- iii. Fingerless gloves are not permitted for use.

H. Hearing Protection.

- i. Supplier Personnel may be exposed to high noise levels in the performance of their assigned duties. Such Personnel are required to wear approved hearing protection to reduce the effects of such exposure.
- ii. The use of hearing protection is mandatory for Supplier Personnel upon entry and for the duration of the stay in high noise areas. All areas with background noise levels of 85 dBA or greater will be designated high noise areas.
- iii. Hearing protection is required when working within the area of an operating unit.
- iv. When a unit is off line, hearing protection is not required, unless otherwise notified by Purchaser or if work is performed on equipment operating generates high decibel levels.

I. Hi-Visibility Vests.

- i. At the beginning of a project, parties will meet to determine and define work areas where the use of hi-visibility vests is required.
- ii. Class II vests or shirts are required if the project determines use of hi-visibility PPE is required as outlined in item i above.
- iii. Supplier shall be required to ensure that vests/shirts meet the requirements of the tasks being performed (i.e., fire retardant, hot work, mesh-heat stress and breakaway-rotating machinery).
- iv. Vests/shirts shall be uniform in color and have reflective materials if conditions of item (i) above are met.

J. Respiratory Protection.

- i. Supplier's Safety Plan shall address the following:
 - a. Respiratory hazards, which include hazardous dusts, mists, vapors, gases, fumes, smoke, biological hazards (e.g., bird feces) or any hazardous particulate. Except where voluntarily used for nuisance dust, the selection and use of respirators shall be based on actual air sampling data or a calculated estimate of exposure levels above the regulatory exposure limits in 29 CFR Subpart Z . Respiratory protection level and cartridge type (where used) shall be appropriate for the chemical hazard encountered and for the anticipated or known exposure level.
 - ii. Operations that generate dust from materials containing silica (e.g., sawing, drilling, or cutting concrete, refractory work, or vacuuming fly ash or coal) shall be presumed to exceed OSHA's Permissible Exposure Limit (PEL) for crystalline silica without the use of adequate controls. Protective measures, such as wet methods and HEPA vacuuming, shall be used to reduce worker's exposure levels below the PEL.
 - iii. A written exposure control plan shall be submitted to the Purchaser for acceptance describing control methods to be developed and implemented for tasks addressed in 29 CFR 1926.1153, Table 1.
 - iv. Control methods (e.g., engineering controls, work practices, and respiratory protection) for activities addressed in 29 CFR 1926.1153, Table 1 shall be followed.
 - v. If controls methods identified in 29 CFR 1926.1153, Table 1 are not implemented, Suppliers shall demonstrate, at no cost to the Purchaser, that worker exposure levels are below the PEL in accordance with in 29 CFR 1926.1153 (d).
 - vi. If exposure monitoring data demonstrates there is an overexposure to Personnel, additional controls methods shall be implemented, at no cost to the Purchaser, to reduce worker exposure levels below the PEL.
 - vii. A complete environmental, health, and safety plan is required when working with or generating hexavalent chromium (e.g., welding or torch cutting stainless steel), inorganic arsenic (e.g., welding or torch cutting boiler components with significant scaling or vacuuming of fly ash), lead, silica dust, man-made vitreous fibers, and/or asbestos.
 - viii. Supplier is responsible for anticipating, recognizing, evaluating, and controlling factors in the workplace that may cause sickness, impaired health / well-being, or significant discomfort among workers. Supplier shall utilize qualified Personnel, such as an Industrial Hygienist, for guidance in addressing workplace hazards capable of causing illnesses, such as, but not limited to the following:
 - ix. Exposures to hexavalent chromium, lead, silica, arsenic (e.g., fly ash at coal plant sites), vanadium (e.g., ash at oil fired sites), asbestos, man-made vitreous fibers (e.g., refractory ceramic fibers – RCF), thermal stress, high noise, ergonomic hazards, and etc.

- x. Where industrial hygiene (IH) monitoring is performed by Supplier or third party, a copy of the IH monitoring results shall be provided to the Purchaser. Names may be removed to preserve privacy concerns.
- xi. Industrial hygiene air samples shall be submitted to a laboratory accredited by the American Industrial Hygiene Association for the analytical method used. Industrial hygiene monitoring shall be performed by a third party not directly employed by Supplier, unless otherwise accepted by the Purchaser
- xii. Purchaser reserves the right to perform industrial hygiene monitoring on-site Personnel to verify worker exposure levels and/or help ensure adequate controls are used. IH monitoring results will be provided to Supplier and/or appropriate Subcontractor. However, the duty to perform IH surveys to ensure regulatory compliance (i.e., burden of proof) resides with the respective Supplier performing the work (e.g., workers' employer) and shall be performed at no cost to the Purchaser.
- xiii. Engineering controls (e.g., ventilation) and/or PPE shall be used to adequately control worker exposure levels below recognized / acceptable limits. Unless permitted by an OSHA standard, Suppliers shall not use job rotation as an administrative control to keep workers' exposure levels to airborne contaminants below a permissible limit (e.g., asbestos, hexavalent chromium).

10. First Aid

- A. Supplier shall ensure sufficient first aid coverage and supplies for the number of Supplier Personnel and the type of tasks Supplier Personnel are performing during all shifts while performing work on Purchaser project sites. First aid response shall include personnel certified to perform basic first aid and cardiopulmonary resuscitation (“CPR”) at a minimum for all shifts and work locations.
- B. Supplier shall have an Automated External Defibrillator (“AED”) available with personnel trained in its usage for all shifts. If Supplier intends to use an AED that does not belong to Supplier, Supplier must first obtain written permission from the owner of the AED.
- C. Automated external defibrillators shall be available to be deployed when needed within five minutes of notification of a medical condition. Additional AEDs shall be required for remote locations that cannot be reached within five minutes.
- D. Remote locations shall also have Supplier Personnel certified to perform basic first aid and CPR. They shall provide the supplies needed to fulfill this requirement for all shifts when work is taking place in remote locations as deemed by Purchaser.
- E. Supplier shall be responsible for overseeing and ensuring Subcontractor injury management. Supplier shall determine the necessary means and methods to achieve this requirement.

11. Rescue Contingency Plans

- A. Supplier shall provide a written rescue contingency plan for jobs/work that pose a greater than normal safety risk, i.e., high angle work, energized hot work, permit confined space work, excavation and trenching, stack work and steel erection.

- B. Supplier shall submit for review and discuss such plans with Purchaser site representation prior to commencement of the work.

Note: Purchaser reserves the right to reject any portion or all of a developed emergency action plan if Purchaser representation deems the plan to be inadequate to protect Personnel against hazards that may be encountered.

12. Lock out/Tag out (Control of Hazardous Energy)

- A. Supplier shall adhere to the appropriate sections of Purchaser Lockout/Tagout (“LOTO”) Procedure when working on or with Purchaser controlled electrical, mechanical, and stored energy systems.
- B. Supplier shall not remove locks, tags, or start to operate any Purchaser LOTO systems or equipment without prior coordination with Purchaser. All testing, adjusting of locked and tagged equipment or systems shall be coordinated with Purchaser.
- C. Supplier shall develop methods to control energy sources in order to protect all Personnel from electrical and mechanical sources during all phases of the work. The process shall include a means to identify/accounting for/notify all Personnel covered by the isolation prior to releasing clearance on equipment or systems.
- D. Supplier shall be responsible to identify appropriate locks, tags, and lock boxes to meet OSHA requirements. Supplier locks and tags must be labeled clearly to identify Supplier’s business name, Purchaser contact name and contact phone number, and the individual’s name (Supplier Personnel’s name). Locks for protection of all Personnel shall be keyed separately.
- E. On Greenfield sites and on equipment Supplier has possession of until turned over to Purchaser, Supplier shall administer the LOTO program and provide all equipment and training for all Personnel on the project.
- F. Supplier and Purchaser shall implement a joint LOTO process during the testing and integrating of new or reconfigured equipment and systems where both Supplier and Purchaser Personnel are exposed to energy sources.
- G. All equipment and systems, after operational acceptance shall comply with Purchaser LOTO Procedure.
- H. If another facility operator other than Purchaser is selected to operate a facility, the process established for LOTO by the selected operator shall be followed.

13. Permits

Supplier shall be responsible for obtaining the following permits as applicable based upon the Work and shall provide Purchaser with copies as requested.

- A. Welding and flame permits whenever the Work produces a flame or spark from welding, cutting, grinding, or heating operations. These will be filled out daily. Only good for one crew, multiple crews requires multiple permits.

- B. Confined space entry permits for operations involving access to confined space. All confined space determinations shall be documented, this includes non-permitted spaces.
- C. Drilling, Digging and Cutting Permits for operations involving breaching or penetrating the surface of any existing structures or ground surface.
- D. Energized Work Permit for any work performed on energized circuits and equipment greater than 120 nominal AC volts.

Note: Rigging Permits are not required for steel erection unless requested by Purchaser. Steel erection, for the purposes of this document, shall be defined as structural steel that is placed as part of installation activities. Structural Steel does not include hand rails, grating, plating, expanded metal or similar materials.

- E. Rigging Permit/Plan requires a pre-job briefing to be conducted by a competent person with all Personnel involved in the task. The rigging permit shall be posted at the job site where the task is being conducted. The Rigging Permit is required under the following conditions :
 - i. Load between 1000 and 2000 lbs. unless using engineering approved hoist or fixed point.
 - ii. Any load exceeding 2000 lbs.
 - iii. Two or more lifting devices required.
 - iv. Transporting load over critical, operating or energized equipment.
 - v. Problematic past lifts with this equipment.
 - vi. Permit deemed appropriate by Personnel supervising or involved in activity.
 - vii. Any lift that if equipment is damaged during the lift, would impede the overall schedule of the project.
- F. Supplier shall develop and utilize right angle grinder permits and limit the availability and usage of cutting wheels for right angle grinders. This permit is to make sure that using an angle grinder for cutting operations is the last resort due to the number of injuries involving these devices. Other preferred methods that are to be considered first are: using port-a-band saws, using a torch to cut and then grinding, etc.
- G. Overhead Power Lines Permit for whenever work is performed within the boundaries 20 feet of energized power lines. This shall be inclusive of cranes, front end loaders, dump trucks, forklifts, back hoes and track hoes, etc.

14. Material Handling Loading and Unloading Areas

- A. This Section applies to all areas in which material shall be off loaded from supply trucks. Supplier shall designate areas and ensure a solid work surface is made available for operators to safely maneuver equipment and materials without sinking and tipping of loads. Supplier shall be responsible for the applicable Safety Requirements that shall include:
 - i. Stabilizing the work area with rock, gravel, or other means to establish 100% compaction. Crane mats may be needed in some cases.

- ii. Performing daily inspections of the area to ensure stability remains effective.
 - iii. Controlling access with danger tape and tag to eliminate Personnel not involved in process.
 - iv. Allowing secondary access and egress to and from work areas in case of an emergency.
 - v. Developing a fall protection plan for accessing trailers and loads.
 - vi. Providing signs for traffic flow, PPE requirements and identification of area.
- B. Spotters shall be required for all equipment material handling activities.
 - C. Suppliers shall ensure that all spotters are properly trained.
 - D. All spotters shall have marine whistles to assist in obtaining the operators and others attention in these areas.

15. Loading and Unloading of Trailers

- A. A Pre-Job Briefing is required to be performed by the truck driver, vehicle operator unloading the truck, and any other Personnel involved in the task.
- B. Pre-Job Briefing and task execution review shall cover, at a minimum:
 - i. Use of stanchions on the backside of all trailers when loading or unloading with a forklift/tele-handler if applicable.
 - ii. Use of barricades on the opposite side of any trailer where Personnel are adjusting a load by hand or with a tool of any kind (i.e., pry bar, etc.) where the potential for the load to shift and pieces fall off.
 - iii. The loading/unloading area shall have adequate clearance around the area to allow foot traffic to stay out of the hazardous area and to allow room for people to move out of the way in the event of a load shift or failure in rigging
 - iv. Material handling processes that present an increased risk of dropping materials off the trailer.
- C. Loads that are stacked too high, potentially unstable, overloaded or considered unsafe by the offloading crew (at their discretion) shall be rejected and sent back to the manufacturer or vendor to be loaded in a safe manner. Purchaser reserves the right to require rejection of loads that in the sole discretion of Purchaser is considered dangerous for offloading.
- D. Supplier will communicate their expectations of safe loads, PPE requirements for drivers, pets/animals, fall protection, and decide who will unstrap/secure the load with all vendors before deliveries are made.

Note: For guidance on barricading during offloading of materials/equipment, please refer to Attachment 6 of this document.

16. Stack Work

- A. This Section 16 applies to all stack work that is outside of normal operation (e.g. working off a ladder on the platform, inspecting landing, and working outside the hand rails). Supplier shall meet with Purchaser prior to performing Work on the stack to discuss and review the applicable Safety Requirements and precautions based on risks associated with the scope of the task(s) being performed. Supplier shall be responsible for the applicable Safety Requirements that will include:
- i. Fitness for Duty (FFD) testing 48 hours prior to Supplier Personnel that will be performing stack work (this includes all work outside of the permanent hand railing;
 - ii. Air monitoring for flue gas based on exposure from adjacent stacks or ductwork;
 - iii. Rescue contingency plan;
 - iv. Secondary access and egress to and from work areas;
 - v. Communication plan and equipment;
 - vi. Adverse weather warning process;
 - vii. PPE requirements;
 - viii. Customized scaffolding/platform design and inspection;
 - ix. First aid training;
 - x. Access control; and
 - xi. Fall protection plan.

17. Diving

- A. Prior to commencing any diving work, Supplier shall review the pre-dive hazard assessment and the diving permit with Purchaser. The hazard assessment and the diving permit shall be discussed at Pre-job Briefings.
- B. Supplier shall have a minimum of three (3) Personnel at the dive location, consisting of a diver, a tender and a designated person in charge (back up diver).
- C. Gas powered compressors used for breathing air shall be continuously monitored for carbon monoxide. An audible alarm shall alert the dive team of excessive carbon monoxide. Calibration of monitoring equipment shall be per manufacturer recommendations.
- D. Supplier shall coordinate each dive with Purchaser to ensure the area has been prepared and cleared for the diving operation.

18. Electrical Safe Work Practices

A. General Requirements.

- i. It is the expectation that circuits be de-energized. Approval to allow energized work must meet stated requirements within this procedure. (Attachment 3)
- ii. Only trained and qualified Electrical Workers shall work on or near exposed energized equipment operating at 50 volts or more.
- iii. Ensure all electrical safety equipment and tools are correctly rated for the task being performed and have been tested and/or inspected as required.
- iv. Ensure a detailed Pre-Job Briefing is performed for working on or near exposed energized equipment and circuits. Identify hazards and anticipate problems.
- v. Utilize an Energized Work Permit when performing work on energized circuits and equipment greater than 120 nominal AC volts.
- vi. Remove or cover up all jewelry or other conductive objects before performing tasks involving exposed energized electrical parts.
- vii. Positively ensure the correct circuit(s) are identified and isolated.
- viii. Removal of wire / cable insulation shall be performed utilizing tools identified in the Attachment 2 at the end of this document.
- ix. Grounding is required at voltages of 600 volts or greater where transient or capacitive voltage could occur.

Note: Consider all circuits or electrical equipment energized at full voltage unless isolated, locked/tagged, tested, and/or properly insulated for the exposed voltage.

B. Live-Dead-Live Voltage Testing. When testing for voltage, the following steps must be taken:

Caution: All circuits or electrical equipment shall be considered energized until Steps 1-5 are completed. Perform the following steps in order:

- i. **Step 1** - Use properly rated rubber goods and protective clothing when required.

Caution: Properly rated rubber goods and protective clothing must be worn before entering and while inside the arc flash boundary or minimum approach distance (whichever is greater).
- ii. **Step 2** - Utilize a properly rated voltage detector/tester to check for voltage for the type of circuit being tested.
- iii. **Step 3** - The voltage detector/tester shall be tested to a known energized source; this ensures the voltage detector is properly working.
- iv. **Step 4** - After testing the voltage detector/tester, check all potential conductors.

- v. **Step 5** - After testing the conductors, repeat **Step 3** to ensure the voltage detector/tester is working properly.

Caution: A tic tracer/wiggy tester or similar device **SHALL NOT** be used to detect or validate the presence or absence of voltage when the task involves personal safety (touching a conductor), LOTO, or any measurement of voltage for any reason involving personal safety for voltages 600 volts or less. When measuring or validating the presence of voltage of 600 volts or less for any Work involving personal safety or LOTO, a direct-contact measuring instrument such as a Fluke multi-meter or equivalent **SHALL** be used.

Note: For voltages of 600 volts or less, a voltage sensing device known as a tic tracer or “Pocket Pen Tester” (Fluke, Amprobe, Transact and others) **may** be used for **indication only**, as is the expressed direction from the various manufacturers. An example would be using the tic tracer check to see if heat tracing is working.

C. Electrical Shock/Arc Flash Protective Equipment.

Caution: If three phase electrical equipment does not have an arc flash label detailing the hazards associated with that specific component, the component can only be worked in a de-energized condition or an engineering analysis has to be completed before energized work is permitted. If Supplier identifies existing equipment that does not have proper labeling, Supplier personnel shall notify station/project representation to ensure equipment is properly evaluated and proper labeling is affixed before work is to occur. This does not include switching.

- i. Personal clothing including under garments shall be 100% natural fiber material or arc flash rated. Shirts must be long sleeved. Synthetic materials such as rayon or nylon that tend to melt when exposed to high temperature are not acceptable. Shirts with non-fire resistant graphics are not allowed due to potential ignitability.
- ii. Supplier shall not expose a worker to the potential of any arc flash in excess of 40/cal/cm².
- iii. Arc flash protection clothing cannot be intermingled. For example, a worker cannot wear an 11 cal/cm² coverall with a 40 cal/cm² hood.
- iv. Clothing Chart.

Arc Flash Rating	Clothing
Less than 2 cal/cm ²	Personal clothing needs to be 100% natural fiber material or arc flash rated, long sleeve shirt, pants and hearing protection
2 to 11 cal/cm ²	11 cal/cm ² arc rated coveralls or greater, 12 cal/cm ² arc flash face shield, with a minimum 12 cal/cm ² sock hood, and hearing protection
12 to 40 cal/cm ²	Arc flash suit that exceeds the arc flash rating of the equipment but not to extend past 40 cal/cm ² with hearing protection

Note: The chart above applies to all Subcontractors.

- D. Arc Flash Boundaries. Arc Flash boundaries shall be established according to specifications listed on the appropriate arc flash label when:

- i. Working on or near exposed energized circuits or equipment at 120 nominal AC volts or greater.
- ii. Racking breakers in/out.
- iii. Electrical equipment manipulation where abnormal conditions exist.
- iv. Utilizing remote racking devices to rack breakers on or off the bus.

Note: All Personnel within the arc flash boundary shall wear the proper rated arc flash clothing and PPE. No unqualified person is allowed in an arc flash boundary without oversight from a Qualified Electrical Worker.

- E. Warning Signs. Warning signs shall be placed on physical barricades such as rope, plastic chain, red barricade tape, or retractable lines approximately 40 inches in height from the walking/working surface to establish an arc flash boundary on all exposed sides of the circuit or equipment at the perimeter of the stated arc flash distance.
- F. Qualified Electrical Worker. A person who is trained and knowledgeable in the following:
 - i. Able to distinguish exposed energized parts and conductors from other parts of electrical equipment.
 - ii. Has the skills and knowledge necessary to determine the nominal voltage of exposed energized parts.
 - iii. Understands the minimum approach distances and corresponding voltages for the task(s) being performed.
 - iv. Can determine the degree and extent of the hazard, proper protective equipment (PPE), and job planning necessary to perform the task(s) safely.
 - v. Has demonstrated the ability to perform duties at their level of training.
- G. Remote Racking Devices. Remote Racking Devices are mechanical devices that allow an operator to rack a breaker on or off a bus from a remote location.
 - i. Operators need to be trained on the specific remote racking device and must obtain and follow manufacturer operating instructions.
 - ii. The calculated arc flash distance must be maintained before and during the actual physical process of racking the breaker.
 - iii. Arc flash clothing is not required by the remote racking device operator to connect/disconnect the device to/from the breaker as long as they are outside of the calculated arc flash distance.
 - iv. Remote racking devices can be utilized on breakers that exceed 40 cal/cm^2 . Personnel shall maintain the calculated arc flash distance listed on the arc flash.
- H. Key Definitions Related to Electrical Equipment and Arc Flash Terminology.

- i. **“Operating”** - The act of changing the status of a breaker or switch from a closed position to an open position or vice versa, Not Racking.
 - a. Operating electrical equipment which is in proper working order with all fasteners, screws, and covers in place does not require additional PPE beyond all natural fiber undergarments, long sleeve shirt and pants.
- ii. **“Working”** - The act of racking a breaker on or off a bus, placing grounds, testing with contact instruments or other activity which brings a conducting material including un-insulated body parts within the Minimum Approach Distance (MAD) of the exposed energized conductor.
 - a. **“Working”** requires additional PPE based on the potential arc flash and electrical shock hazards.

Caution: All properly rated rubber goods and clothing must be worn before entering and while inside the arc flash boundary or Minimum Approach Distance (MAD) (whichever is greater).

Note: All doors and other openings into electrical cabinets shall be fully secured when “working”, where possible. Main access doors and panels need to remain closed and secure when racking in/out breakers.

- I. **Electrical Maintenance Functions.** Are considered “working” and shall comply with listed arc flash clothing and PPE on appropriate arc flash labels before exposure to energized circuits or equipment.

Clarification: For voltages 50 or greater to 120 volts – all natural fiber under garments, long sleeve shirt and pants, insulated tools and/or appropriately rated rubber gloves with leather covers.

Caution: All properly rated rubber goods and clothing must be worn before entering and while inside the arc flash boundary or minimum approach distance (whichever is greater).

- i. Rubber sleeves shall be used with rubber gloves where energized circuits could contact the arm above the cuff of the glove. Workers need to maintain working distances or wear appropriate rated gloves and if needed rubber sleeves to provide protection from electrical contact. Otherwise additional insulation shall be required.

Caution: Initial verification of circuits or electrical equipment shall be considered energized.

- J. **No Label-No Work Policy.** If three phase electrical equipment does not have an arc flash label detailing the hazards associated with that specific component, the component can only be worked in a de-energized condition or an engineering analysis has to be completed before energized work is permitted. This does not include operating a breaker.

This policy includes three phase low voltage systems greater than 50 volts and less than 480 volts. The most common system which the policy applies is the 208/120 volt, 3 phase panels which are fed directly from a step-down transformer.

The part of this system that creates an arc flash hazard is the conductors from the transformer to the panel or cabinet. This is due to the transformer source being a 480 volt breaker that usually takes a long time to trip in the event of a fault on the low voltage side of the transformer.

Caution: Do not remove the cover of a 208/120 volt three phase panel if it is fed directly from a transformer while the panel is energized. De-energize the transformer and then de-energize the panel, prior to removing the cover.

Clarification: Electrical equipment not included in the “No Label-No Work Policy” includes:

- All circuits, either three phase or single phase which originate at 208/120 volt circuit breakers or fuses, including downstream feeders to other panels, do not present a hazard (i.e., arc flash energy that exceeds 2 cal/cm^2).
- Single phase systems, which are predominately 240/120 volt panels, do not present a hazard (i.e., arc flash energy that exceeds 2 cal/cm^2).
- UPS systems are predominately single phase and not included in the No Label-No Work policy.
- Temporary power or other unlabeled 480 volt equipment shall be worked in accordance with the source supply arc flash label.

- K. Electric Shock/Minimum Approach Distance. No Qualified Electrical Worker shall approach or take any conductive object closer to exposed, energized equipment or circuits as set forth in Table ESWP-1 unless:
- i. The worker is insulated from the energized equipment or circuit using the appropriate rubber goods, voltage rated tools, and arc flash clothing.
 - ii. Supplier ensures an adequate amount of manufacturer insulated hand tools rated to 1000 volt are available for any electrical work within the minimum approach distance until the work area is de-energized.
 - iii. The energized equipment or circuit is insulated from the Qualified Electrical Worker and from any other conductive object at a different potential.

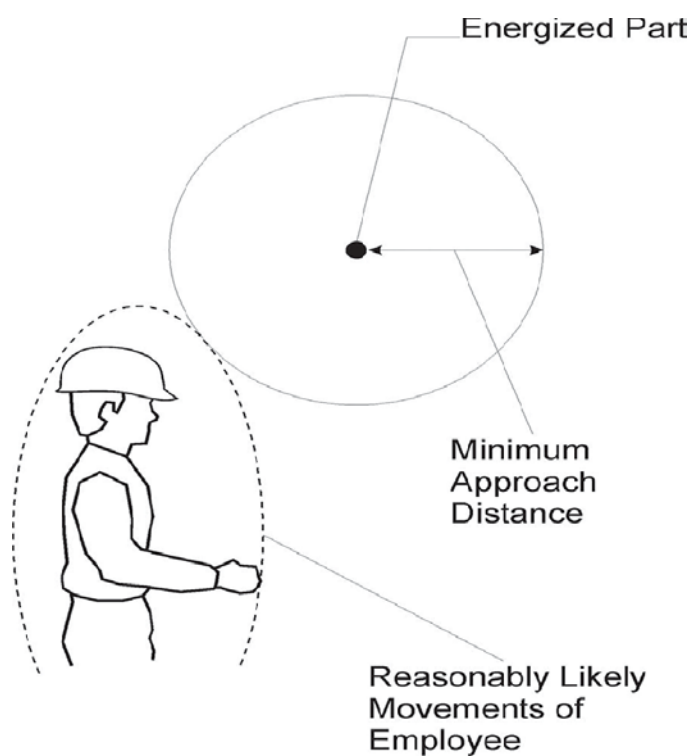


Table ESWP-1	
Voltage	Minimum Approach Distance
50 volts to 300 volts	Avoid contact
301 volts to 750 volts	1 foot 3 inches
751 volts to 15,000 volts	2 feet 3 inches
15,001 volts to 36,000 volts	2 feet 10 inches
36,001 volts to 46,000 volts	3 feet 2 inches
46,001 volts to 72,500 volts	3 feet 11 inches
72,5001 + volts	See OSHA 1910.269 Standard for Distances

- L. **Insulation Materials.** Can be used to eliminate energized electrical hazards. When applying insulation to energized conductors:

Caution: Only approved and tested insulation materials may be used.

- i. Appropriate arc flash and electrical shock PPE shall be used during the process of applying or removing insulation material.

- ii. Insulate all exposed conductors if contact potential exists and if the process of insulating does not increase the risk of contact.

Caution: Rubber sleeves shall be used with rubber gloves where energized circuits could contact the arm above the cuff of the glove. Workers need to maintain working distances or wear appropriate rated gloves and if needed rubber sleeves to provide protection from electrical contact. Otherwise additional insulation shall be required.

- M. Breakers. Breakers that become stuck while being racked in or out of the cubicle shall not be forced into the desired position. The area shall be barricaded and the bus shall be removed from service prior to freeing the breaker from the stuck position.

- i. Breakers with overheating conditions shall be barricaded and the bus removed from service prior to removing the breaker from the cubicle.

- N. Energized Electrical Work Permit. It is the expectation that circuits be de-energized. Energized work must be approved by Supplier's Electrical Superintendent.

- i. Energized electrical work is acceptable for tasks which can only be performed with the equipment energized or when the use of de-energized electrical work procedures presents a greater hazard. An Energized Electrical Work Permit (see Attachment 3) must be completed prior to work.

- ii. Energized work is permitted in the following situations:

- a. De-energizing shall cause additional or increased hazards.
 - b. De-energizing is infeasible due to equipment design or operational limitations.

- iii. Specific conditions when energized work permit could be utilized:

- a. De-activation of emergency alarm systems.
 - b. Shutdown of hazardous location ventilation equipment.
 - c. Removal of critical illumination for an area.
 - d. On or near energized circuit parts because of infeasibility due to equipment design or operational limitations to include testing of electric circuits that can only be performed with the circuit energized.
 - e. Where major process failure would harm Personnel or equipment.

- iv. Due to the degree of electrical hazards associated with this type of work, additional controls described in this Section must be used when performing energized electrical work. Energized Electrical Work Permit:

- a. Energized electrical work on systems greater than 120 nominal ac volts requires an Energized Electrical Work Permit.
 - b. Energized electrical work greater than 120 nominal ac volts must be approved by Supplier's Electrical Safety Superintendent prior to work commencing.

- c. A detailed Pre-Job Briefing shall be completed, even when working alone.
- O. Exemption from Energized Work Permit. Work performed on or near exposed energized electrical equipment by qualified worker related **only** to:
- i. Testing
 - ii. Troubleshooting
 - iii. Voltage measurement
 - iv. Voltage detection
 - v. Meggering and Bridging

Note: Properly rated PPE is still required to be worn by the qualified worker as well as following the appropriate safe work practices.

- P. Two-Person Rule. At least two qualified workers shall be present while the following type of work is being performed:
- i. Installation, removal, or repair of de-energized lines or equipment if a worker is exposed to contact with other parts energized at more than 600 volts.
 - ii. Installation, removal, or repair of equipment (such as transformers, capacitors and regulators) if the worker is exposed to contact with parts energized at more than 600 volts.
 - iii. Work involving the use of mechanical equipment, other than insulated aerial lifts, located near parts energized at more than 600 volts.

Note: The below items do not apply to the following operations:

- Routine switching of circuits.
 - Work performed with live-line tools if the worker is positioned either out of reach of or otherwise not exposed to contact with energized parts.
 - Placing and/or removing grounds.
- Q. Cable Trays, Conduits, Raceways, Manholes, And Cable Vaults. Prior to working on or in a cable tray, conduit, raceway, manhole or cable vault containing energized cables, a Job Hazard Analysis (JHA) shall be developed by the qualified supervisor or qualified Person to include potential hazards, methods to alleviate the hazards and PPE to be used. The JHA shall be used to develop and included in the Pre Job Briefing.
- R. Peer Check. A peer check utilizes a second qualified worker as a hazard control measure when there are grave consequences from failure to follow safe-work procedures or during training sessions. A peer check must:
- i. Be performed by qualified worker.

- ii. Have no other duties that preclude continually observing, coaching, and monitoring for potential hazards or mistakes.
- iii. Have a thorough knowledge of the specific working procedures to be followed and the work to be done.
- iv. Be close enough to the work to monitor the work methods and be able to communicate in a timely manner.

S. Electrical Extension Cords.

- i. Electrical extension cords must be double insulated, flexible, heavy duty, reinforced and sheathed with rubber or equivalent. They shall be a minimum of 12 gauge 15 amp capacity (including light strings and drop lights). Extension cords shall have no abrasions, deteriorations, or nicks in the outer insulation. Cords that are unmarked as to the gauge and amperage will be removed from service if it is considered suspect by a Purchaser Representative.
- ii. Extension cords must be rated for their intended use and must be approved by a nationally recognized testing laboratory such as UL.
- iii. Extension cords shall not be used in place of permanent wiring in fixed or temporary structures, including offices, warehouses, or maintenance/fabrication shops.
- iv. Extension cords used by Personnel for construction and maintenance activities shall have approved Ground-Fault Circuit Interrupters (“GFCI”) at the power source for Personnel protection, including extensions cords used with portable generators.
- v. Extension cords cannot be attached together to increase the distance from the power source to provide temporary power.
- vi. Daisy chains (power strips plugged in series to other power strips, or extension cords plugged into power strips) are not permitted. Power strips designed for indoor use shall not be used in an outdoor environment. Power strips used in outdoor environments shall be properly designed with covers present and properly maintained.
- vii. Extension cords shall not run through walls, ceilings, floors, doors, or windows, and shall not be subjected to vehicular traffic and other similar situations. Extension cords shall be hung with non-conductive material and if placed in path of travel, protected by covers or designed protective cable covers (manufactured). If cord is placed within a roadway, protective measures utilized must be rated for the maximum weight of traffic passing through the area.
- viii. Equip temporary lights with guards around lamps and do not suspend the lighting by the supply cord or extension cord using metal or other conductive material. Live parts, i.e., light sockets, must be guarded.
- ix. Extension cords may be repaired by a qualified worker using only UL approved materials. Tape is unacceptable and taped cords will be tagged out and removed from service immediately.

- x. Extension cords shall be visually inspected for defect prior to each use. Cords that are found defective shall be tagged defective and removed from service. Ground Fault Circuit Interrupters (“GFCI”) shall be tested from proper function prior to each use.

T. Clearance around Electrical Equipment.

- i. Maintain access and working clearance space around power and lighting breaker panels, motor controllers, and other similar electrical equipment.
- ii. Clearance space must not be blocked.
- iii. A general clearance rule for most electrical equipment is 30 inches wide and 36 deep.

U. Rubber Gloves and Sleeves.

- i. Use Class 0 low voltage rubber gloves when:
 - a. Racking breakers in/out up to 600 volts.
 - b. Electricians/Technicians are working on or within the minimum approach distance of exposed energized circuits or equipment from 50 volts to 600 volts. **EXCEPTION:** Use of insulated tools in lieu of rubber gloves on circuits 50 volts to 249 volts.
- ii. Use Class 2 (II) rubber gloves when:
 - a. Racking breakers in/out above 600 volts.
 - b. Switching 115kV/230 kV/500 kV if the Operator cannot visually verify the ground lead is attached to the grating and the switch structure.
 - c. Electricians/Technicians are working on or within the minimum approach distance of exposed energized circuits or equipment above 600 volts to 15,000 volts.
 - d. Assigned to penetrate any surface where a hazard may exist as designated on the Digging, Drilling, and Cutting Permit.
 - e. Reference Electrical Safe Work Practices, paragraphs (d) and (e) for further information on usage of rubber gloves and sleeves.
- iii. Glove Testing Frequency.
 - a. Gloves shall be laboratory proof tested every 91 days.
 - b. Sleeves shall be laboratory proof tested every 182 days.
 - c. Rubber blankets shall be laboratory proof tested every 273 days.
- iv. Rubber Gloves and Sleeves:

- a. Insulating gloves and sleeves shall be visually inspected by the wearer for defects. Gloves shall be air tested before use each day and at any time there is a cause to suspect any damage. They shall be inspected over the entire surface and shall be rolled gently between your hands to expose defects and imbedded materials.
 - b. Use rubber sleeves with rubber gloves where energized circuits could contact the arm above the cuff of the glove.
 - c. Gloves and sleeves should not be marked nor have any adhesive tapes or labels applied to them other than by authorized testing laboratory.
 - d. The rubber glove cuff must extend a minimum of two inches beyond the cuff of the glove protector for Class 2 (II) gloves.
 - e. Leather protectors (gauntlets) shall be worn over insulating gloves to prevent mechanical damage.
 - f. Cloth gloves may be worn inside of rubber insulating gloves for warmth in cold weather and to absorb perspiration in hot weather.
 - g. Leather protectors are to be used on rubber insulating gloves only for mechanical protection. They have no electrical insulating abilities.
 - h. Protectors that have been used for any other purpose should not be used to protect rubber insulating gloves.
 - i. The protector glove should be sized and shaped so that the rubber insulating glove shall not be deformed from its natural shape.
- v. Proper Storage for Rubber Gloves and Sleeves:
- a. Rubber gloves and sleeves may be stored in a bag, box, or container that is designed and used exclusively for storage of these materials.
 - b. Gloves and sleeves shall be stored in a location that is as cool, dark, and dry as possible. The storage location shall be as free as possible from ozone, chemicals, oils, solvents, damaging vapors and fumes, and away from electrical discharges and sunlight.
 - c. Gloves and sleeves shall not be stored folded, creased, inside out, compressed, or in any manner that shall cause stretching or compression. Do not store other materials on top of gloves and sleeves, which may compress them (causing mechanical stress) or may puncture, tear, or damage them in any way.
 - d. Line hose and other cover materials shall be stored in a location as cool, dark, and dry as possible. They shall be stored in a suitable box designed for that purpose only.
 - e. Blankets and jackets shall not be stored, folded, creased or compressed in any manner. Do not store other materials on top of blankets or jackets, which may compress them (causing mechanical stress). These items should always be stored flat or rolled. The use of a canvas roll up or canister is a preferred method.

- f. Care should be exercised to store protectors in an area as free as possible from oils, greases, chemicals, and other materials that may damage the insulating gloves.
- vi. Rubber Protective Line Cover Materials Field Care and Inspection:
 - a. Line hose and other types of cover material, before use and installation on energized conductors, devices or equipment, shall be inspected visually for defects. They shall also be inspected at any other time if there is cause to suspect any damage.
 - b. Tape shall not be used to secure, ship, or store line hose and covers. The adhesive plasticizer used on certain tapes can damage the surface of these items.
 - c. Line hose and covers should be left in service on energized lines for minimum necessary periods of time only as exposure may result in ozone checking, corona cutting, excessive weathering, contamination, and possible electrical breakdown of insulating ability.
- vii. Field Visual Inspection of Blankets:
 - a. Cracking, the blankets should be rolled two times on each side so that the second roll shall be at a right angle to the first roll. Blankets that show any of the above reasons for rejection should be tagged, turned in to your supervisor, and returned to your supervisor to assure that they get the proper inspection and/or retest.
- viii. Training Required:
 - a. All Personnel shall be trained on the proper inspection and use of rubber goods prior to initial use and as needed based on observations.

19. Ground Assurance Program (Electrical)

- A. When Supplier's Work requires the use of electric tools or equipment, tools/equipment shall be protected by utilizing a GFCI at the base of the power supply. GFCI's are to be tested prior to each use.
- B. All generators, welding machines, light plants, temporary and permanent electrical panels shall be equipped with GFCI's. Protection shall be built into all Supplier's provided power outlets and repaired immediately if damaged. Equipment, as defined within this item, without GFCIs built in shall not be allowed on-site.
- C. For portable generators, external grounding (connected to earth) of the generator frame is not required under the following conditions:
 - i. The generator supplies only equipment mounted on the generator and/or cord and plug-connected equipment through receptacles mounted on the generator, and;
 - ii. The noncurrent-carrying metal parts of equipment (such as the fuel tank, the internal combustion engine, and the generator' housing) are bonded to the generator frame, and the equipment grounding conductor terminals (of the power receptacles that are a part of [mounted on] the generator) are bonded to the generator frame. **For equipment not**

meeting both of these conditions, external (connect to earth) grounding will be required.

- D. If a generator is providing electric power to a structure by connection via a transfer switch (home, office, shop, trailer, or similar) it must be connected to a grounding electrode system, such as a driven ground rod. The transfer switch must be approved for the use and installed in accordance with the manufacturer's installation instructions and National Electric Code (NEC) by a qualified electrician. The requirement for connecting to a ground electrode system also applies to any hardwired installations for equipment or buildings that do not have transfer switches.
- E. Fish tape/rope utilized to pull wiring shall be constructed from non-conductive materials.

20. Training/Certification Requirements

- A. Supplier Personnel shall be trained in the recognition and avoidance of unsafe conditions/behaviors and the safety and health training/certifications applicable to the Work being performed. Documentation supporting such safety and health training shall be made available to Purchaser upon request.
- B. Supplier's site management and supervisors shall have completed the OSHA 10-hour construction industry outreach course within the last 48 months before taking a supervisory role on a Purchaser project. A sticker with the training date of the OSHA 10-hour construction industry outreach course is required to be di-electrically tested and to be applied on all Supplier Personnel's hard hats. The sticker will be standardized and provided by Supplier.

Note: This requirement does not apply to Suppliers providing incidental services or repairs (i.e., drink machine vendors, janitorial, etc.).

- C. Supplier shall provide proof of 10 hour construction industry outreach training as requested along with the training dates.
- D. Supplier shall ensure all electrical workers are trained and certified according to training requirements established in OSHA 29 CFR 1910.269 (a)(2)(ii).

21. Safe Work Area Preparation

Supplier shall maintain a safe Work area at all times while performing Work on Purchaser Premises, including but not limited to the following:

- A. Place needed warning signs and adequate barricades (in English and in languages other than English if needed or with a universal symbol-based system for the communication of information.)
- B. Strategically place fire extinguishers.
- C. Notify Supplier Personnel of first aid/eyewash/shower stations.
- D. Survey area for excessive noise from Supplier equipment.
- E. Providing adequate lighting for all Work.
- F. Power lines shall have permanent signage placed on both sides of a line.

- G. Danger Overhead Lines Signs shall meet the ANSI Z535 standard. Signs shall also list the voltage and the minimum clearance distance. These signs will be posted on both sides of the height indicators and on both the right and left sides of the road with minimum dimensions of 3'x4'.
- H. Signs shall be placed on both sides parallel to the power line at a distance of 20'-30' depending on the speed limit in the area and in between units/buses with flagging providing the clearance distance to assure that booms are lowered when traversing underneath the power lines.

Note: If 20'-30' is not available, signs shall be posted with appropriate flagging hanging from the line.

- I. Designate walking areas to protect all Personnel from vehicle traffic, and to provide a safe walking surface shall be required. These areas shall be rock, pavement, or concrete to provide safe access into and away from parking lots, Work locations, break locations, and job trailers. Fencing, stakes, or stanchions with barricade tape, jersey barriers, or similar demarcation shall be provided and maintained by Supplier. If holes or ditches have more than a 2' drop off along walkways or roadways, jersey barriers shall be provided.
- J. Roadways and working areas shall be maintained properly. This may include mucking out mud, providing gravel, providing mud mats/crane mats, etc.
- K. It is Supplier's responsibility (cannot be delegated to Subcontractors) to provide safe access/egress including providing gravel, mucking out muddy areas, dressing up ruts, providing adequate access/egress, and placing ladders, stairs, ramps for elevation changes in all Work areas.

22. Scaffolding

Except as otherwise provided for in the Agreement:

- A. Supplier shall build, or shall provide means to build, all scaffolding in their scope of work to completion when possible.
- B. Supplier (and all subcontractors) shall select and utilize system scaffolding of uniform design throughout the entire course of the work.

Note: For the purposes of this agreement, competent scaffold builder shall be defined as the use of competent Personnel as defined in the OSHA scaffolding standard (29 CFR 1910 Subpart D and 29 CFR 1926 Subpart L) for the erection, modification and dismantling of scaffolds

- C. Supplier and their Subcontractors shall eliminate fall hazards by including all railings and eliminating gaps/holes in scaffolding when feasible. Yellow tagging of scaffolding shall be held to a minimum whenever possible. Scaffolds shall be built to completion at all times when feasible and green tagged so as not to require fall protection usage.
- D. Supplier shall use a three tag system (green, yellow, red) as described below to identify the current status of the scaffolding during all phases of erection, use, and disassembly. The appropriate tag shall be placed at every access point on the scaffold.
- E. Supplier shall have a Person who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to Personnel, and who has authorization to take prompt corrective measures to eliminate them (hereinafter, a

“Competent Scaffold Person”). Supplier shall inspect the scaffolding prior to the start of each shift, and shall attach an appropriate scaffold inspection tag with current date, full signature, load rating, and PPE requirements to the scaffolding. Scaffold tag colors are to designate the completeness of the scaffold. Additional hazards are to be addressed with barricade tape.

- **Green** scaffold tag with current date indicates that the scaffold has been built in accordance with OSHA standards and is safe for use.
 - **Yellow** scaffold tag with current date indicates that the scaffold is incomplete and therefore requires fall protection during use.
 - **Red** scaffold tag indicates that the scaffold is unsafe and shall not be used.
- F. Any alterations to an existing scaffold shall be supervised by a Competent Person as defined for scaffold erection, modification and dismantling under OSHA 29 CFR 1910 Subpart D and 29 CFR 1926 Subpart L.
- G. If a scaffold has no tag or a tag without a current date, that scaffold is not to be used until it has been inspected and tagged appropriately.
- H. Scaffold components shall be kept out of walkways and stored in an organized and neat fashion on the job site.
- I. All scaffolding shall comply with the requirements of this Section 22 and OSHA 29 CFR 1910 Subpart D and 29 CFR 1926 Subpart L.
- J. Engineering documents and manufacturers erection guides for custom scaffolding (i.e., slip forms, etc.), shall be provided and discussed with Purchaser prior to scaffold erection.
- K. Supplier shall implement a process to ensure 100% fall protection when working on, assembling, and disassembling scaffolding.
- L. Supplier shall assure that self-retracting lifelines (SRLs) are installed on scaffold ladders 12 feet in height or higher.
- M. Spring loaded swing gates with a top and mid-rail (21” and 42” respectively) shall be provided on all scaffolds at every entrance point.
- N. Supplier shall implement a process to prevent scaffolding components from falling during the assembly and disassembly of scaffolding.
- O. Scaffold erectors using hand tools shall use a tether to prevent the tools from falling.
- P. All scaffolds shall be equipped with mudsills. The mudsills shall be nailed to the feet of the scaffold.
- Q. Scaffolding shall have handrails installed anytime there is an opening between the edge of the walking working surface and any adjacent structure.
- R. Toe boards shall be installed on all exposed sides of the walking/working platform.
- S. No opening shall exceed one (1) inch in the walking/working surface.

- T. All scaffolding working surfaces shall be a minimum width of thirty-six (36) inches to allow a basket to be landed for rescue purposes.
- U. All scaffolds shall be provided with fire retardant netting from the top rail to the flooring to reduce the risk of falling objects.
- V. The area below scaffolding shall be adequately red barricaded when assembling/disassembling scaffolding. Also when Work is taking place on scaffolding that may allow objects to fall below.
- W. Rolling scaffolds are permitted for use under the following conditions:
 - i. Scaffolding may not be moved while material or personnel are on it;
 - ii. When in use, all casters must be locked;
 - iii. Only to be utilized on flat, hard surfaces (i.e., concrete, pavement and similar surfaces);
 - iv. When used on grating, plywood must be placed underneath casters when in use;
 - v. Rolling scaffolds are not to be utilized for storage or as a work table.
- X. Baker/Perry type scaffolds shall not be used on Purchaser projects.
- Y. Purchaser has the right to require scaffolding in lieu of ladders or other methods of access. The ladders or other methods of access will be red tagged until scaffolding or a safer method of access is provided.
- Z. Boiler scaffolding working surfaces shall be a minimum width of thirty-six (36) inches and shall be tight with no space through which tools or fragments of material can fall.
- AA. Boiler scaffolds will require a registered professional engineer (PE) to sign off on the boiler scaffold design and perform an inspection before the boiler scaffold is utilized.
- BB. Form (Civil Work) platforms are considered scaffolds and shall be built out of scaffold components. These formwork platforms shall be inspected and treated the exact same as scaffolding.
- CC. Job made platforms and ladders shall not be allowed. Platforms and ladders shall be constructed only of scaffolding components.

23. Confined Space

- A. Supplier shall provide all training, required Personnel, and needed equipment for their workers and their Subcontractors.
- B. Purchaser prohibits immediate danger to life and health (“IDLH”) confined space entry by anyone other than qualified rescue Personnel in emergencies. This includes IDLH atmospheres, temperatures, or other IDLH situations.
- C. OSHA exceptions to the confined space standard will not be permitted on Purchaser projects unless a designated Purchaser Representative agrees with the exception.

- D. Supplier (including for Subcontractors and Purchaser) shall issue a written evaluation/permit prior to entry into confined space areas. This is for permit required and non-permit required confined spaces.
- E. Supplier shall provide initial and continuous atmospheric monitoring while Personnel are in confined space areas. This includes permit and non-permit required confined spaces.
- F. Confined space instrumentation shall be calibrated/bump tested in accordance with manufacturer recommendations. Supplier shall maintain copies of calibration records. Documentation shall be available to Purchaser upon request.
- G. Supplier shall provide confined space instrumentation, attendants, permits, and rescue Personnel/equipment.
- H. Supplier is responsible for informing all project Personnel including Subcontractors, Power Generation Personnel, and Power Generation subcontractors on the project of hazards within the confined spaces that are to be entered.
- I. Excavations 4 feet in depth or deeper shall be considered a confined space and shall be evaluated as a permit or non-permit required confined space. Regardless of the classification, excavations 4 feet in depth or deeper shall be continuously monitored.

24. Fitness for Duty

Supplier shall comply with and require all Supplier Personnel to comply with Purchaser's fitness for duty ("FFD") program as set forth in this Article. Supplier Personnel shall report to Purchaser's Premises fit to perform their duties in a reliable and trustworthy manner, with no detectable presence of Banned Substances, prescription or non-prescription drug on their person or property, and free of any impairment from fatigue or any other cause that in any way might adversely affect their ability to safely and competently perform their duties. Purchaser may require Supplier Personnel at Purchaser's Premises to provide breath and/or urine samples for drug and alcohol testing. Supplier shall cooperate fully and cause all Supplier Personnel to cooperate fully in such testing; including having Supplier Personnel tested using Purchaser-approved and/or Purchaser's FFD testing locations. Such testing shall occur if any of the following conditions occur or circumstances are present:

- A. After observed behavior or receipt of information that warrants, in Purchaser's sole discretion, such testing; or
- B. After on-site accidents resulting in:
 - i. A fatality;
 - ii. An injury or illness that meets the recording criteria set forth in 29 C.F.R. 1904.4 or other applicable standard;
 - iii. Property damage;
 - iv. An actual or potential degradation of the level of safety of Purchaser's Premises when there is, in Purchaser's sole determination, reasonable suspicion that an individual's behavior contributed to the event;

- v. After a driver-avoidable vehicle accident;
 - vi. Medical treatment beyond first aid; or
 - vii. Loss of consciousness.
- C. Testing for Banned Substances other than alcohol will be by urinalysis, conducted and confirmed using established standards. Initial testing may be performed at Purchaser's facilities. Laboratories used will be certified by the U.S. Department of Health and Human Services. Testing for alcohol will be by breath analysis. If confirmed positive by breath analysis, Purchaser may require the individual to undergo a urine test. Any Supplier Personnel refusing to provide a breath or urine specimen for testing or refusing in any way to cooperate in the testing program will be denied access to Purchaser's Premises.
- 25. Qualified Safety Personnel**
- A. Supplier shall have on-site, full time, qualified safety Personnel during all shifts when Work is being performed when staffing meets or exceeds 10 personnel (including subcontractors working under direction of Supplier). Purchaser reserves the right to require a full time safety person at its discretion for high hazard tasks, including but not limited to, stack work, Hydroblasting, trenching and excavation work, steel erection, demolition, safety performance or as determined by Purchaser.
 - B. A second qualified safety Person shall be provided by Supplier if staffing exceeds fifty (50) workers. An additional qualified safety Person for every additional one hundred (100) workers will be required. Additional qualified safety Person(s) shall be provided by each Subcontractor with more than twenty-five (25) workers.
 - C. Safety Personnel shall be dedicated solely for the purposes of site safety consultation and assistance with identification and correction of recognized safety hazards. Safety Personnel shall not be responsible for any other jobsites, environmental issues, human resources, production, scheduling, payroll, security, quality control, time keeping, ordering supplies other than safety supplies, physically placing barricades, administering drug and alcohol testing and remedial clerical work.
 - D. Safety Personnel designated for the site shall meet with the on-site Purchaser Project Safety Representative once per day. Safety Personnel shall convey to Purchaser Project Safety Representative any safety issues, program implementation, upcoming high risk activities, safety trends, behavior based safety, field observations, areas of focus, Supplier performance, drug and alcohol testing information, site removals, upcoming project transitions, Personnel changes, corporate safety audit results, corporate safety visits, etc.) during these reviews.

Note: Under the terms of this agreement, events such as first aid cases, injury events, property damage events etc. are required to be reported to Purchaser Project Safety Representative on occurrence and is outside of the scope of information to be shared with Purchaser Project Safety Representative as outlined in item C of this Section.
 - E. Supplier safety Personnel shall be considered qualified for site safety management responsibilities if Personnel meet a minimum of **one** of the following criteria:
 - i. Bachelor's degree in safety or related technical field with a minimum of 5 years of large project experience in a construction safety environment.

- ii. A minimum of 5 years' experience on a large project in a construction safety environment and completion of the OSHA 500 Training Course.
- iii. A CHST designation with a minimum of four years in a construction safety environment.

Note: Supplier Personnel who do not meet one or more of the specified criteria for this section shall not be considered by Purchaser Power Generation safety representation as qualified for site safety support for a Supplier and subcontract Personnel.

- F. Supplier shall submit resumes for its qualified safety professionals for approval by Purchaser's Project Safety Representative. Purchaser reserves the right to reject any applicants for any reason.
- G. If Supplier doesn't have adequate numbers of safety Personnel as required under this Section, Work shall stop until the requirement is met. Any exceptions to this requirement shall require approval of Purchaser Power Generation Vice President.

Note: It is strongly recommended that Supplier has redundancy in safety staffing for illnesses, time off, turnover, family emergencies, etc.

- H. If Supplier or Subcontractor safety Personnel do not perform up to the Purchaser Power Generation Team's expectations, a suitable replacement shall be requested and required within 7 days of request.
- I. Supplier shall submit a list to Purchaser containing the name(s) of Supplier's Personnel who are qualified or competent in the following areas: arc flash, electrical, fall protection, cranes, rigging, Lock Out/Tag Out, and Commissioning.

Note: Responsibility for compliance with the requirements for item I of this Section shall not be the responsibility of Supplier's Project Safety Representative or any additional safety representation brought on-site by Supplier or Subcontractor. It is expected that Supplier provide supervision that meets the criteria defined in item I to monitor the types tasks listed. If requested by Purchaser, training records are to be provided for these competent Persons.

26. Supplier Consequences for Safety Violations, Infractions and/or Failure to Correct Unsafe Conditions

- A. Consequences for non-compliance with safety rules vary according to the severity of the occurrence. Purchaser reserves the right to impose any or all of the following for violations, infractions and/or failure to correct unsafe conditions.
- B. Supplier shall be responsible for the following:
 - i. Verbal corrections for minor infractions.
 - ii. Addressing both serious/and very serious infractions as defined below.
- C. Very Serious violations/infractions include, but are not limited to, any of the following: arson, sabotage, aggravated assault, theft, failure to comply with Purchaser's Fitness For Duty requirements as set forth in Section 24 – Fitness for Duty, distribution of illegal drugs, or safety violations that result in serious injury, death or property damage.

- D. Serious violations/infractions may include as determined by Purchaser, but are not limited to, any of the following:
- i. Fall Protection (incidental or blatant).
 - ii. Work without a valid permit.
 - iii. Deviating from procedures or agreed practices to save time.
 - iv. Not following safe electrical practices.
 - v. Not adhering to labeled arc flash values.
 - vi. Working with live energized parts when unnecessary.
 - vii. Not wearing the appropriate arc flash gear for the hazard.
 - viii. Not performing live, dead, live testing.
 - ix. Not utilizing insulated tools or blankets needed for the job.
 - x. Not continuously conducting air monitoring when required.
 - xi. Not verifying isolation before Work begins.
 - xii. Not having authorization or credentials before entering confined space.
 - xiii. Entering a red barricade or radiological barricade without permission of the team who erected the barricade.
 - xiv. Supervision that fails to implement and enforce any of the items in this list.
 - xv. Not obtaining permission to override/operate critical equipment/systems.
 - xvi. Operating a mobile crane without a current CCO designation from National Commission for the Certification of Crane Operators (NCCCO) for that type of crane or without evidence of operator evaluations per OSHA 29 CFR 1926.1427 (a) and (f).
 - xvii. Hitting an object with the boom of a crane.
 - xviii. Hitting an object with the counterweight of machinery.
 - xix. Lifting of or attempting to lift equipment or materials by mobile crane outside of the crane's load chart or over the crane's rated load capacity.
 - xx. Crossing a barricaded swing radius during an active crane lift operation without permission.
 - xxi. Operating a forklift without a current and valid license for that type of forklift.
 - xxii. Not utilizing a spotter when required.

- xxiii. Operating an Aerial lift/Scissors lift without a current valid license for the equipment being operating.
- xxiv. Not following the projects digging, drilling, and cutting process.
- xxv. Anyone misleading an investigation.
- xxvi. Anyone found working prior to receiving orientation.
- xxvii. Anyone who doesn't report an injury in a timely manner.
- xxviii. Supervision that doesn't correct safety deficiencies in a timely manner.
- xxix. Not filling out a Pre-job Brief before starting Work.
- xxx. Not protecting against falls when working at heights.
- xxxi. Working or walking under suspended load.
- xxxii. Dropping an object from heights.
- xxxiii. Not wearing a seat belt when one is provided.
- xxxiv. Unauthorized removal of a LOTO.
- xxxv. Unauthorized entry or actuating equipment owned and labeled by start-up/commissioning.
- xxxvi. Smoking outside of a designated smoking area.
- xxxvii. Fighting.
- xxxviii. Insubordination or unprofessional behavior towards Purchaser representatives.
- xxxix. Consuming or possessing alcohol or drugs on the site without a prescription.
- xl. Multiple minor violations.
- xli. Horseplay.
- xliv. Unauthorized alteration to scaffolding.
- xlvi. Bringing firearms, ammunition, explosives or other lethal weapons.
- xlviii. Supervision that allows workers to perform Work without proper qualifications. I.E., proper Arc Flash training.
- xlv. Serious vehicle incidents involving a failure in individual performance.
- xlvi. Other serious safety violations as defined by the Purchaser.

- E. Consequence for the first offense of a serious violation/infraction is removal from the site and access denial to all Purchaser Premises for 5-years. Proof of rehabilitation or counseling must be provided by Supplier before access shall be considered.
- F. Consequence for a second offense of a serious violation/infraction is permanent access denial.
- G. Consequence for any Very Serious violation/infraction is permanent access denial to all Purchaser Premises.
- H. In the event of a safety related dismissal, Supplier shall notify Purchaser, in writing, providing the following information, so that individuals can be added to the Security Banned/Denied Access List:
 - i. Full name of employee(s) dismissed.
 - ii. Duration of dismissal in line with Purchaser policies.
 - iii. Last 4 digits of the dismissed employee's Social Security number.
 - iv. Driver's license: State and Number.
 - v. Date of occurrence.
- I. Unsatisfactory safety or health conditions, or slow response in correcting safety issues or actions, may result in suspension of Supplier's Work. Extra time spent by Supplier correcting Supplier safety or health infractions does not entitle Supplier to additional compensation or extension of time.
- J. Unsatisfactory safety or health conditions or practices not corrected may result in termination of the Agreement by Purchaser.
- K. Supplier's supervision or management that fails to enforce or correct safety deficiencies or that attempt to not report, mislead, or cover up incidents shall be immediately removed from Purchaser's Premises on discovery.
- L. Destruction, misuse, or defacing of Purchaser's Premises or tangible property (e.g., graffiti, defacing and destruction of port-a-potties, i.e., plant alarm systems) shall be treated as Serious violations/infractions and subject to the same consequences (i.e., first offense shall result in removal from the site and access denial to all Purchaser Premises for 5 years).
- M. If Purchaser experiences continuous safety issues with a Supplier and/or Subcontractors, Purchaser may, on written direction of Purchaser leadership, impose additional safety requirements upon Supplier.
- N. Additional safety requirements may include, but are not limited to, monetary reimbursements for damages attributable to safety violations, additions to safety staffing, additional safety training, and changes to Supplier on-site leadership.

27. Chemicals and Hazardous Materials

- A. PURCHASER'S PREMISES MAY CONTAIN HAZARDOUS CHEMICALS IN USE OR STORAGE WHICH ARE SUBJECT TO THE REQUIREMENTS OF 29 CFR §1910.1200 (the "Hazardous Chemicals Regulations").

- B. If the Work is performed using materials furnished by Supplier or its Subcontractors, Supplier and its Subcontractors shall comply with all applicable hazardous substance regulations. Supplier shall ensure, at all times, that for all hazardous chemicals supplied, used, produced, or stored at Purchaser's Premises by Supplier or Supplier's Subcontractors, all appropriate SDS(s) are readily accessible to all employees during each work shift. Supplier shall also comply with the hazard warning label requirements set forth in the Hazardous Chemical Regulations.
- C. Prior to commencing work, Supplier shall provide training documentation certifying their employees have been trained in hazard communication. Supplier shall maintain written records demonstrating its and its Subcontractors' compliance with the Hazardous Chemical Regulations' hazard communication requirements. Such records shall include a list of all chemical products supplied, used, produced, or stored in connection with the Work, a written hazard communication program, the location of all applicable SDS(s), and records of Supplier Personnel hazardous chemical training. Such records shall be available for Purchaser's inspection.
- D. Supplier shall comply with hazard warning label requirements set forth in the OSHA Hazard Communication standard (29 CFR 1910.1200).
- E. Any container used to contain fluids on-site shall be appropriately labeled to identify the material being used and the hazards associated with the materials (it is recommended the NFPA 704 be utilized for such labeling due to universal comprehension and immediate emergency response).

28. Lead / Asbestos

A. Lead.

- i. Supplier shall, to the extent possible, evaluate the coating of all surfaces for the content of lead prior to removing or disturbing such surfaces. In the event lead is detected, Supplier shall notify Purchaser's Environmental Compliance Coordinator prior to proceeding with the Work.
- ii. Supplier shall ensure (in writing when requested by Purchaser) that any surface coating placed on new or existing equipment or structures does not contain lead.

B. Asbestos.

- i. Supplier shall take reasonable steps to avoid the use of, and require its suppliers to avoid the use of, asbestos-containing material in any product or insulation. Purchaser shall be notified in writing of material or insulation products that contain asbestos and why non-asbestos containing material or insulation cannot be substituted. Purchaser reserves the right to review the findings of the substituted material or products.
- ii. Supplier Personnel may be performing the Work in areas where asbestos is present and Supplier shall assume all insulation material contains asbestos unless otherwise labeled, confirmed by analytical testing or identified as non-asbestos by Purchaser. Supplier must inform Purchaser's Environmental Compliance Coordinator or designee prior to the commencement of any Work that will result in the removal of any insulation or other potential asbestos containing material at Purchaser's Premises. Supplier shall require all Supplier Personnel to comply with all applicable laws, regulations, ordinances, and standards, and with Purchaser policies and procedures, relating to asbestos.

- C. Demolition-Renovation Notifications. Notwithstanding any other provision of these Supplemental Terms and Conditions, Supplier shall bear the cost and submit all notices required by applicable Environmental Laws prior to the commencement of demolition-renovation work. Supplier will provide Purchaser's Environmental Compliance Coordinator or designee with copies of such notices, and will make amendments if necessary to fully comply with requirements.

29. Ladders: Fixed and Portable

A. General Requirements.

- i. Utilize industrial grade ladders in good condition.
- ii. Inspect ladders prior to use.
- iii. Use straight and extension ladders with safety feet.
- iv. Do not use ladders over machines with exposed and/or moving parts.
- v. Only one employee shall Work on a portable ladder unless the ladder is designed to support two workers and is load rated by the manufacturer for two workers and has an ANSI A-14.5 label/markings attached permitting more than one worker.
- vi. Maintain fixed and portable ladders free of oil, grease, and other slip hazard materials.
- vii. Do not load ladders beyond the maximum intended load rating established by the manufacturer.

B. Portable Ladders.

- i. To prevent tipping and breaking, place straight and extension ladders with the feet approximately one-fourth of the ladder's extended length from the wall or object on which the top is resting (4 to 1 ratio).
- ii. Extension ladders must be secured in place for use by a single user. If an extension ladder cannot be secure, Personnel may utilize additional Personnel to hold the ladder in place during access, Work and egress from the ladder.
- iii. Only extension or straight ladders are to be used for access to or from upper landing surfaces and extend the side rails of the portable ladder at least three feet above the upper landing surface. When such extension is not possible, the top end of the ladder must be secured to prevent displacement and a grasping device or grab rail provided to assist in mounting and dismounting the ladder.
- iv. Face the ladder and use both hands for support when ascending or descending ladders. Never place your feet higher than the third rung from the top of the ladder when on an extension ladder.
- v. Use a stepladder in the open, locked position unless authorized otherwise by the manufacturer. Do not stand on the top cap or the next step down of any stepladder.
- vi. Do not use a stepladder by leaning it against a wall or structure. Make sure that the ladder is fully open and that the spreaders are locked in place.

- vii. Take appropriate precautions when working in foot traffic areas.
- viii. Metal/Aluminum ladders are not permitted on Purchaser projects.
- ix. Only ladders Type 1A (300 lb. rating) or greater are permitted.
- x. When ascending or descending ladders, maintain three points of contact.
- xi. Use hand ropes to hoist equipment.
- xii. Ladder footing needs to be on a firm, level and stable surface.
- xiii. Do not extend past belt buckle when reaching off the side of the ladder.

C. Fixed Ladders. All fixed ladders shall be installed in accordance with OSHA 1910 Subpart D (Walking and Working Surfaces standard).

30. Fire Protection

- A. Supplier shall provide and maintain all fire suppression equipment required for the protection of equipment and property.
- B. Supplier shall ensure that a fire extinguisher, rated not less than 2A, shall be provided for each 3,000 square feet of protected building area, or major fraction thereof. Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 100 feet.
- C. Supplier shall complete and post a Welding and Flame Permit when welding, cutting, and grinding or conducting Work that produces an open flame.
- D. Supplier shall provide fire watch Personnel designated by a unique vest. The fire watch shall remain at the hot Work location for at least 30 minutes after completion of hot Work activity even during lunch/breaks.
- E. Fire watches must be within line of sight of the hot Work activity. Fire watch Personnel shall not perform fire watch duty for multiple areas if areas are not within the fire watch's line of sight.
- F. Supplier shall provide fire retardant cloth to be used in order to protect Purchaser's Premises, equipment and cable trays from sparks or slag.
- G. Plastic/Fabric sheeting, tarps (including those used for shade), and covers used shall be flame retardant and UL/FM approved. This includes construction of temporary structures/enclosures. Plastic wrap on equipment delivered to the site should be removed when possible before being moved from lay down areas onto the site.
- H. Compressed gas cylinders are to be secured in an upright position with non-combustible material such as metal chain or number nine gauge steel wire.
- I. Any wood including temporary materials used inside a permanent structure shall be UL/FM approved fire retardant. In cases where fire retardant wood is impractical, fire retardant coatings can be used.
- J. Aerosols with flash points below 100° F are not to be used.

31. Demolition and Equipment Removal

- A. Supplier shall, prior to starting the demolition of structures or equipment; conduct a survey to determine the condition of the structure or equipment and the impact demolition will have on adjacent structures or operations as required under OSHA 1926 Subpart T.
- B. The survey shall include the sampling of insulation materials and surface coating.
- C. A competent/qualified Person(s) shall conduct the survey. A Professional Engineer (“PE”) may be required, if deemed necessary by Purchaser, to conduct this survey or to give approval to parts of Supplier’s demolition plan.
- D. Supplier shall develop a written plan based on the survey to ensure the safe demolition and/or removal of the structure or equipment. The competent/qualified Person(s) shall be present during all phases of the demolition and/or removal to ensure the plans are correctly implemented.
- E. The plan shall include detailed steps on how the structure will be removed during all phases of the demolition and/or removal. Plans shall be reviewed with Supplier Personnel performing the demolition with the competent/qualified Person(s) prior to starting each shift or more often based on conditions noted during the demolition and/or removal.
- F. All materials must be lowered in a controlled manner such as with a crane, hoist, sling, or other mechanical means. Prior written permission must be obtained from Purchaser project lead in order to drop materials or structures to lower levels.
- G. Supplier shall limit and control access to the area where demolition and/or removal is being conducted. Drop zones and Personnel protection for walkways and site access through these zones may require canopies or additional protection.
- H. Demolition equipment shall have manufactured bars and cages to protect occupants of track hoes, and other demolition equipment operating in close proximity to potential falling materials and structures. This includes knocking down trees.
- I. Supplier shall conduct a walk down of the demolition area upon completion of demolition activities and at any time during any phase of demolition work that is requested by Purchaser’s representative.
- J. Walk down shall be conducted by a qualified electrical supervisor and mechanical supervisor for Supplier and shall identify all potential hazards present (i.e. unterminated electrical wiring, structures creating slip/trip hazards, materials that could fall from overhead locations), detail the locations of the hazards and verify corrective actions were taken to address the identified hazards.
- K. Supplier shall complete a written report of the walk down findings for any and all walk downs completed as specified in item I of this Section. Submitted reports shall be signed off by the mechanical supervisor and electrical supervisor participating in the walk downs. A copy of the report with Supplier representative signatures shall be provided to the Purchaser upon completion.
- L. Purchaser has the right to request Supplier to provide a detailed work package for review prior to demolition work taking place as requested.

- M. Purchaser has the right to require a plan of the day meeting that may include Supplier, Supplier subcontract personnel, Purchaser's subcontract personnel, Purchaser and Power Station at the Purchaser's discretion.

32. Fall Protection

- A. Supplier shall provide a means of 100% fall protection or restraint for Supplier's Personnel engaged in activities four (4) feet or more above lower levels, or when the area below Personnel presents a hazard of falling onto rotating, moving or energized equipment. Requirements of this item shall apply when working from ladders and during all steel erection and scaffolding erection tasks.
- B. Supplier shall provide a means of fall protection for Supplier's Personnel working on a structure with a leading edge with a fall distance four (4) feet or greater. This includes transformers, open excavations, equipment repairs, hydro-seeding, sitting on top of fence posts, removing tarps from trucks, assembly maintenance and disassembly of cranes, assembling and disassembling jobsite trailers, washing out concrete trucks, flat bed unloading/loading, or other operations where the fall distance exceeds four (4) feet.
- C. 100% fall protection shall be defined via two categories: (i) passive and (ii) active fall systems. Passive fall systems are defined as handrail, secured hole coverings of sufficient strength to withstand the weight of traffic passing over them or similar systems. Active fall protection is defines as the use of a harness, an anchorage, and twin leg connecting devices.
- D. If a passive fall protection system is selected by Supplier's competent/qualified Person for use, the competent/qualified Person shall ensure these systems comply with criteria set forth in the OSHA 29 CFR 1910 Subpart D and OSHA 1926 Subpart M.
- E. If an active fall protection system is selected by Supplier's competent/qualified Person(s) for use, the competent/qualified Person shall ensure that equipment is sufficient to stand up to extreme sharp edge performance, retractable self-retracting lifelines ("SRLs") are rated for clearance at foot level tie offs and shall also include a harness hang syndrome prevention device. A one foot extension to allow easy tie-offs to SRLs on ladders is allowed to ensure safe access for connection to an anchorage point.
- F. Supplier shall ensure that only manufactured fall protection systems or components are installed, used, and inspected in accordance to manufactures recommendations. Information pertaining to these systems and equipment shall be maintained at the site and be available to Purchaser upon request. If this documentation is requested, Supplier shall stop Work until the proper documentation can be provided at Supplier's cost (this includes all Subcontractors).
- G. Supplier shall submit, upon request, a written fall protection plan to be reviewed with Purchaser's Project Safety Representative prior to the commencement of Work involving fall protection activities that are complex or present an increased exposure for serious injury.
- H. Supplier shall ensure that Supplier Personnel who use, inspect, or install fall protections systems are trained in the use and limitation of all components.
- I. Supplier shall inspect fall protection systems and equipment at a minimum prior to each use.
- J. Free fall distance shall be limited to no more than six (6) feet in the event of a fall or shall be limited to prevent personnel from striking a lower level within six (6) feet or less.

- K. Supplier shall provide and require dual retractable lanyards when working at heights of twenty (20) feet or less and/or when working overhead where structures or equipment is located within twenty (20) feet below the potential fall.
- L. Welders shall be provided with fire resistant harnesses and lanyards when utilizing fall protection during welding.
- M. Supplier's non-compliance with fall protection requirements shall be treated as a Serious violation/infraction and subject to the consequences set forth in Section 26 - Supplier Consequences for Safety Violations, Infractions and/or Failure to Correct Unsafe Conditions (i.e., first offense shall result in removal from site and access denial to all Purchaser's Premises for a minimum of 5 years).
- N. Supplier supervision that fails to implement and enforce fall protection requirements shall also be treated as a Serious violation/infraction and subject to the consequences set forth in Section 26 - Supplier Consequences for Safety Violations, Infractions and/or Failure to Correct Unsafe Conditions (i.e., first offense shall result in removal from site and access denial to all Purchaser's Premises for a minimum of five (5) years).
- O. During construction, SRLs shall be provided by Supplier on all ladders, temporary or permanent, twelve (12) feet or more in height, or with a potential fall of twelve (12) feet or greater. This only applies to the ladders utilized by Supplier and its Subcontractors.
- P. Supplier shall ensure the use of four (4) foot lanyards (unless otherwise specified by the manufacturer) with harness when working from an aerial lift. To utilize a device other than the four (4) foot lanyard will require submittal of documentation to and prior agreement of Purchaser.
- Q. Scissor lifts will only be utilized if equipped with fall protection anchorage points.
- R. All man lifts shall be inspected by each operator daily and have a documented inspection on hand while in use.
- S. Supplier shall barricade the swing radius of the man lift.
- T. All fire extinguishers shall be placed in a designated holder in the basket for man lifts.
- U. Each man lift shall have catch netting installed on the inside of the basket from the toe board to mid-rails at a minimum.
- V. Man-lift users shall be responsible for repairing/replacing catch nets before each and every use if the nets are in need of repair.
- W. Rigging shall not be utilized as an anchorage point or connecting device for fall protection unless it is new (i.e. never been used for material lifting or hoisting) and properly rated and marked for use with fall protection only.
- X. For work where Supplier or Supplier Subcontractor personnel could be working within six (6) feet of a leading edge, a hard barricade shall be installed along the leading edge that meets applicable OSHA standards for proper strength and deflection.

- Y. Harnesses shall be stored separately from all other equipment and to avoid damaging of the webbing connections. Harnesses shall not be left on the ground while not in use.
- Z. When SRLs are in use, user shall ensure that all SRL cabling is fully retracted into the SRL casing when not in use. Any SRL not meeting this requirement shall be tagged defective and immediately removed from service.

33. Overhead Work/Falling Objects

- A. Supplier shall implement a written process and plan to minimize the risk of falling objects by identifying preventative measures during the planning stages of a task.
- B. Work shall not commence until controls are put in place to prevent the risk of injury to all Personnel and other Persons from falling objects. Falling object mitigation plans shall also be updated, as necessary, while performing Work and as the job changes, incorporating lessons learned from previous injury or near miss incidents involving falling objects.
- C. Supplier shall utilize a combination of as many control methods as possible to prevent falling objects and the injuries that are incurred by these falling objects. Systems considered effective in reducing falling object hazards include, but are not limited to, the following:
 - i. Identification of hazards in Pre-Job Briefings – All Personnel along with their supervisor when working at elevated heights shall inspect their Work area and identify hazards relating to the overhead Work and falling objects. Together they shall determine what control measures are needed to be implemented in order to eliminate or mitigate the hazards for protection of Personnel below.
 - ii. Tool Lanyards – A tool lanyard is a short rope or webbing used to secure tools and equipment to an anchorage point in order to reduce the risk of injury from a falling object. The tool lanyard may be attached to an anchorage point such as the Person using the tool, or around a column or beam. Tool lanyards should be attached to the Personnel for tools weighing less than 24 ounces. Tools greater than 24 ounces should be attached to an anchorage point capable of holding the tool in the event that it is dropped such as to the aerial lift basket or structure. This drop distance needs to be minimized to keep from striking people and structures below.
 - iii. Securing Loads Mechanically – Loose items shall either be 100% connected by mechanical means (rigged or wired [e.g. Bolts, steel sheets, wedges, pins, grating installation]), or the area beneath shall be red barricaded and tagged.
 - iv. Containment Sheeting/Netting – Containment sheeting or netting is required to be fixed to the perimeter and flooring where holes and grating are located overtop of structures and working surfaces to prevent objects such as tools and building materials from falling into an area that may be accessed by Personnel and other people. An acceptable material for containment is timber, plywood, metal sheeting, synthetic sheeting, metal mesh, and synthetic mesh. For floors fire blankets may also be used.
 - v. Toe Boards – All walkways, platforms, scaffolds, that are elevated 6 feet or more above lower levels shall have toe boards at least 4 inches in nominal height on every leading edge. Also, if there are penetrations in the walkway, platform, or scaffold that area shall have toe boards around the penetration.

- vi. Raising/Lowering Tools – Rated buckets, canvass bags, or lifting rack/skids shall be used to raise and lower all tools and materials. Tools and materials are not to be carried or lifted without being in a rated bucket, canvass bag, or lifting rack/skid.
- vii. Exclusion Zones – Shall be red barricaded with tags on each side of the barricade. The exclusion zone shall be adequate for the height and type of materials being used in the area. Deflection, wind, height, and type of material (i.e., sheets fly farther) shall be taken into consideration to determine the adequacy of these zones. Hard barricading or fencing may be required for Work such as stack Work if Purchaser deems it necessary. If the exclusion zone is breached Supplier shall re-evaluate and extend the exclusion zone.
- viii. Debris Nets – Shall be placed for Overhead Work/Falling Object plan. Debris netting, metal mesh or an agreed upon superior method shall be used on all aerial lifts and scissor lifts to minimize the chance of falling objects. These debris nets shall be replaced as needed.
- ix. Canopies – Any walkway in an exclusion zone or through major overhead Work areas shall be provided with a canopy. This may be scaffolding or shoring material with mesh over the sides and heavy planking on the top to protect Personnel.
- x. Housekeeping – Areas where Work is taking place **above lower levels** shall have a process that includes accountability for maintaining these areas clean and free from debris that can fall to lower elevations. These areas shall be kept clean during Work and inspected by Supplier's front line supervision at the beginning and conclusion of Work every shift. If these areas are found to not be adequately kept clean Supplier's front line supervision shall clean these areas themselves if deemed necessary, at the sole discretion of Purchaser.

34. Process Safety Management

Supplier Personnel shall not enter anhydrous ammonia or chlorine storage areas or Work on anhydrous ammonia or chlorine systems or equipment without receiving approval from Purchaser. Supplier shall notify Purchaser if tasks must be performed on, around, above or that could impact the anhydrous ammonia systems or chlorine systems.

35. Inorganic Arsenic

- A. Purchaser locations that use eastern bituminous coal as a fuel could be subject to the inorganic arsenic standard during certain maintenance activities, such as maintenance activities that are involved with the fireside of the boiler or in areas that contain fly ash. Supplier Personnel shall be properly trained prior to performing Work in inorganic arsenic regulated areas. Respiratory protection and protective clothing shall be worn when working in inorganic arsenic regulated areas. Regulated areas include, but are not limited to the following:
 - i. In the boiler during cutting, burning, grinding or welding on old boiler tubes.
 - ii. In the fly ash system or precipitator prior to effective vacuuming or wash down.
 - iii. Any area where the accumulation of fly ash exists that may be disturbed and made respirable, such as a duct or fan.
 - iv. Methods to deregulate areas may be used with Purchaser's approval.

36. Hexavalent Chromium

- A. Hexavalent Chromium is a material that is commonly associated with the use of stainless steel. Hexavalent Chromium is liberated from stainless steel materials primarily through hot Work activities. Requirements outlined in this Section shall apply to all Work activities with materials that:
- i. Have chromium content; specifically materials that are part of hot Work tasks where welding fumes created by alloy base metals and welding rods may cause exposure to Hexavalent Chromium.
 - ii. Have the potential to exceed the OSHA Action Level (2.5 ug/m³) and/or the OSHA Permissible Exposure Limit (5.0 ug/m³).
- B. Requirements of this Section shall apply to all Supplier Personnel and Subcontractor Personnel that may be exposed over the Action Level/PEL for hexavalent chromium.
- C. For Work on Purchaser premises meeting the requirements of Item A of this Section, Suppliers shall have a hexavalent chromium exposure control program prior to conducting such Work.
- D. A copy of Supplier's hexavalent chromium exposure control program shall be submitted to Purchaser for review and acceptance prior to any Work involving potential hexavalent chromium exposure. Work on Purchaser premises involving hexavalent chromium shall not be permitted until Supplier's submitted program is reviewed and accepted by Purchaser.
- E. Information submitted for review of Supplier's hexavalent chromium exposure control program shall include:
- i. A copy of Supplier's written hexavalent chromium exposure control procedure.
 - ii. Control methods (e.g., engineering controls, Work practices and respiratory protection).
- Note:** Control methods outlined in Item E, subsection (i) of this part shall not include job rotation as an administrative control to limit Personnel exposure to hexavalent chromium.
- iii. Evidence of air sampling data used as the basis for development of Supplier's hexavalent chromium exposure control plan
- F. If control methods identified or air sampling data outlined in Item D of this Section are not demonstrated, Supplier shall demonstrate, at Supplier's expense, that exposure levels are below the Action level/PEL in accordance Item A, subsection (ii) of this section.
- Note:** Purchaser reserves the right to perform industrial hygiene monitoring for hexavalent chromium on-site Personnel to verify worker exposure levels and/or help ensure adequate controls are used.
- G. Supplier Personnel shall be properly trained prior to conducting Work on Purchaser premises that may result in Personnel being exposed above the OSHA Action Level (2.5 ug/m³), the following are required. Training shall include, but is not limited to:
- i. Hazard communication training as it applies to hexavalent chromium.

- ii. Training on requirements for exposure control for regulated hexavalent chromium Work as outlined within Supplier's written hexavalent chromium exposure control plan.
- H. If Work on Purchaser premises meets requirements for regulated Work as outlined within Item E of this Section, the following requirements shall apply:
- i. All Persons entering the regulated areas shall refrain from eating, drinking, smoking, applying cosmetics, or chewing gum/tobacco products while in the regulated area.
 - ii. Areas where regulated hexavalent chromium Work will take place shall be barricades utilizing red danger or orange hexavalent chromium barricade tape and shall have signage affixed on all sides of the perimeter indicating the following:
 - iii. Supplier hexavalent exposure control plan shall outline proper Personal Protective Equipment, hygiene practices for hexavalent chromium work.
- I. Requirements for the selection, use and care of respiratory protection used as a method of exposure control for hexavalent chromium shall meet all requirements outlined in Section 9, Item J of this document.

37. Silica

- A. Supplier shall develop and provide to Purchaser representation for review, a written silica exposure control plan when work involving occupational exposures to respirable crystalline silica in construction work, except where employee exposure will remain below 25 micrograms per cubic meter of air (25 ug/m³) as an 8-hour time-weighted average ("TWA") under any foreseeable conditions.
- B. Supplier exposure control program shall, at a minimum, be expected to meet requirements set forth on 29 CFR 1926.1153(c) – Table 1: Specified Exposure Control Methods when working with materials containing Crystalline Silica
- C. For work that is not identified in subsection (B), but poses a significant risk of crystalline silica exposure, supplier exposure control plan shall follow requirements established in 29 CFR 1926.1153(d).
- D. Purchaser reserves the right to require Supplier to incorporate any and all exposure control methods identified by the Purchaser upon review of the exposure control plan that the Purchaser deems necessary to ensure personnel protection that may be above and beyond the scope of subsections (A) through (C) of this section as it sees fit.

38. Heat Stress

- A. Supplier shall provide a written heat stress/heat illness prevention and mitigation plan to Purchaser Project Safety Representative for review prior to commencing Work where heat stress considerations are present.
- B. Supplier shall be responsible for conducting one or all of the following when heat stress risk is present:

- i. Provide shade or provide timely access to shade. Weather and conditions should be discussed every morning at the Pre-Job Briefing prior to starting Work.
- ii. Adequate water supply of at least one quart per employee per hour for the entire shift is with each crew at the beginning of the shift. Personnel shall be encouraged to drink at least one quart of water per hour.
- iii. Work locations that allow Personnel to rest outside of ambient air conditions of 85 degree or higher with humidity factored in.
- iv. Utilize Work practices (Work/rest cycles) or PPE or a combination of both for the reduction of heat stress risk.

39. General Site Requirements

- A. Supplier shall ensure that site vegetation is maintained in such a manner as not to endanger Personnel. Grass, shrubs, and other natural debris shall be mowed, trimmed and removed from site to reduce the risk of insects, snakes and other wild life.
- B. If vegetation control is not to the satisfaction of Purchaser, a written request shall be issued to Supplier. If Supplier doesn't take actions from this request within 48-hours, Purchaser shall hire vegetation control contractor and back charge Supplier for the cost.
- C. When applicable, Supplier shall purchase and post site signage for traffic flow, speed limits, designated smoking areas, fuel storage areas, hearing protection requirements, hydration, PPE requirements, laser in use, area identification, Supplier identification, safety posters, safe Work days and safety recognition.
- D. For site emergency plan signage, site emergency exit route and assembly (muster) area signage shall be high visibility in nature and shall be required to be, at a minimum, at least 4' by 6' in size.
- E. All on-site signage shall be maintained so that signage remains legible and shall be written in English.
- F. Access and egress paths throughout the site must be maintained daily to ensure adequate access is available to all areas at all times in case of an emergency. Daily inspections of access and egress areas are required by supervision. This is to be covered by the supervisor with the crew in Pre-Job Briefs.
- G. Porta-potties shall be supplied by Supplier, unless otherwise agreed to in accordance with OSHA guidelines. In addition, one hand washing station capable of pumping water shall be required for each porta-pottie.
- H. Location of porta-potties shall be as such that the doors shall not open into roadways. All porta potties shall be properly secured to prevent accidental overturn.
- I. Supplier shall ensure that good housekeeping conditions are present at all times as Work takes place. Cleaning up at the end of shift is inadequate; housekeeping shall be maintained as the Work progresses. Adequate dumpsters shall be located throughout the site. Dumpsters shall be emptied in a timely manner.

- J. Supplier shall take immediate action if the site is found to be in poor housekeeping condition. If housekeeping is found to be inadequate, at Purchaser's discretion, Work shall be stopped until the site is cleaned to Purchaser's satisfaction.

40. Professional Behavior

Conduct that interferes with another individual's Work performance or creates an intimidating, hostile, or offensive Work environment will not be tolerated and will be treated as a Serious violation/infraction and subject to the consequences set forth in Section 26 - Supplier Consequences for Safety Violations, Infractions and/or Failure to Correct Unsafe Conditions (i.e., first offense shall result in removal from site and access denial to all Purchaser's Premises for a minimum of 5 years). Such conduct includes but is not limited to: racial slurs, gender-related slurs, excessive profanity, unwelcome touching, displaying sexually suggestive materials, and inappropriate use of the internet, e-mail, and voice mail.

41. Dress Code

- A. Purchaser site dress code requires long pants and shirts with a minimum of 4" short sleeves. The wearing of tank tops, sleeveless shirts, shirts showing the navel, or shorts is not permitted.
- B. Clothes should be suitable for the Work and weather conditions.
- C. No profanity or offensive materials are allowed on clothing.
- D. Supplier Personnel may not wear loose or baggy clothing, or dangling jewelry. Long hair must be tucked up under hardhats.

42. Emergency Notification and Procedures

- A. The following information shall be covered in Supplier's orientation process:
- DO safely and calmly exit to the pre-designated assembly area location provided by your supervision. If you are confused or forget where to go, find a supervisor or employee of your company and go with them.
 - DO make sure that we know that you are safe. When you get to the assembly area, find your supervisor or designee and provide them your name and company.
 - DO follow the instructions of site management.
 - DO NOT leave your designated gathering location. It is vital that we know where you are and how to contact you. You will be released as quickly as possible.
 - DO NOT talk to the media. Direct any media questions to your supervisor or the leader of the assembly area.
 - DO NOT speculate about the event. If you call your loved ones, please tell them you are safe, but don't speculate about accidents or injuries as this can create unnecessary emotional hardship for other families.
 - DO encourage family, friends, and loved ones to stay safely at home.
- B. In the event of a fire, medical emergency, confined space emergency or chemical spill, Supplier shall contact Purchaser immediately.

- C. Supplier shall set up an effective evacuation alarm/light strobe system, designated gathering location, as well as a means of quickly and accurately accounting for all of its Personnel.
- D. In the event of an emergency, Supplier is to relay the headcount to Purchaser in a timely manner.
- E. Supplier shall have a process to account for Supplier Personnel in the event of an emergency evacuation, and Supplier shall ensure that Supplier Personnel are familiar with the emergency alarms and emergency procedures on Purchaser's Premises.
- F. An alternate designated gathering location is also to be chosen (in case of ammonia spills, fires close to that area, etc.).
- G. Make sure guests and visitors are trained on this procedure.
- H. Supplier and Purchaser are to have a plan for where media is to gather in the case of a catastrophic event.
- I. Supplier and Purchaser are to have a plan for where family, friends, and loved ones are to gather in the case of a catastrophic event.

43. Smoking Policy

- A. Designated smoking/Vaping areas shall be established with the consent of Purchaser.
- B. These smoking areas shall consist of an orange snow fenced in area with butt cans or buckets filled with sand and provided with fire extinguishers. They shall also be labeled "Designated Smoking/Vaping Area".
- C. Smoking shall not be allowed outside of designated areas. Parking lots and roadways can be designated as smoking areas as long as signage is readily marked.

44. Barricaded Areas

- A. Supplier shall protect all floor/ground openings through the use of a standard guardrail or cover, and shall secure and identify the cover "Hole Cover" when used. The cover must be of sufficient strength to support double the anticipated load of Personnel, equipment or material that may be required to pass over it.
- B. Supplier shall use YELLOW "CAUTION" tape for barricading areas of moderate to low risk hazards such as tripping hazards, and/or welding and burning, etc. A worker approaching a yellow barricaded area may cross the barricade once he/she makes a visual observation of the Work area and is fully aware of the hazard.
- C. Supplier shall use RED "DANGER" tape for barricading areas of high risk hazards such as overhead Work (including under aerial lifts), high potential for falling objects, exposure to dangerous processes/ materials and/or high risk of falls. A worker approaching a red barricaded area may cross it only after he has personally received permission from the crew performing the Work. **Crossing a danger barricade without permission shall be treated as a Serious violation/infraction and is subject to the consequences set forth in Section 26 - Supplier Consequences for Safety Violations, Infractions and/or Failure to Correct Unsafe Conditions**

(i.e., first offense shall result in removal from site and access denial to all Purchaser's Premises for a minimum of 5 years).

- D. Supplier shall place green contractor barricade tags on all barricades that indicate the nature of the hazard, who placed the barricade, contact information, and the date the barricade was put in place. Personnel shall not be permitted to pass through any barricade that does not have tags affixed identifying the hazards.
- E. Supplier shall place barricades at a height of no less than 36" above a working surface and no more than 48" above a working surface to ensure that barricade height is sufficient to deter immediate entry into a barricaded area (i.e. Personnel walking directly under or stepping over a barricade to access an area).
- F. Supplier shall actively maintain all barricades placed in the field where hazards exist. Maintenance shall include periodic review of barricades for need, along with condition. Barricades observed to be in poor condition shall be replaced periodically if barricade is still required in the field.
- G. Supplier shall remove all barricades as soon as the hazard is removed or abated.
- H. Fall hazard barricade tape shall be placed to adequately protect Personnel from an identified fall hazard. Supplier shall place green contractor barricade tags on the barricade indicating the nature of the hazard, which placed the barricade, and the date the barricade was put in place. Supplier shall remove the barricade when the hazard is removed.
- I. Supplier shall barricade only the area where immediately dangerous to life and health conditions exist. Red barricading entire Work areas, or to keep Personnel out, or to claim storage shall not be allowed. Purchaser shall issue a written warning if red barricading is overused and the red barricade area shall be changed to include only immediately dangerous to life and health issues. If the issue isn't resolved before shifts end the supervisor in charge of the area shall be removed from Purchaser property indefinitely.
- J. Stanchions or moveable structures shall be purchased and shall be utilized by Supplier and all Subcontractors to assure that only the necessary Work areas are barricaded. These stanchions shall be used for all barricaded areas requiring tape.
- K. YELLOW and MAGENTA radiological hazard tape shall have the same meaning as RED "DANGER" tape.
- L. Supplier shall barricade the swing radius of the equipment's superstructure, i.e., drill rig, track hoe, crane, etc., with red "DANGER" tape while performing stationary Work.
- M. Holes and elevation changes greater than 2 feet including all forms, concrete foundations, dikes more than 2 feet in depth shall be hard barricaded and able to withstand 200 lbs. of force applied on the barricade with minimum deflection. Signage shall also be applied.

45. Power Tools

- A. Supplier shall be responsible for the following obligations:
 - i. Inspect all power tools before each usage.

- ii. Avoid dangerous environments. Do not use power tools in damp or wet locations. Keep Work areas well lit. Do not expose power tools to rain. Do not use power tools in the presence of flammable liquids or gases.
- iii. Disconnect tools from their power source when not in use, before servicing, when changing blades, bits, etc.
- iv. Keep proper footing and balance at all times when using power tools, do not overreach.
- v. Never remove guards, alter or misuse power tools. These tools are precision-built. Any alteration or modification not specified, by the manufacturer, is misuse and may result in an accident or damaged tool.
- vi. Only authorized repair Persons should attempt electrical or mechanical repairs. Contact an authorized service dealer. Use only authorized replacement parts because any others may create a hazard.
- vii. Always use the proper tool for the job. Do not force a small tool or attachment to do the job of a heavy-duty tool. Do not use a tool for purposes not intended, i.e., do not use a circular saw for cutting tree limbs or logs.
- viii. Secure materials that you are working on with clamps or a vice. It is safer than using your hand and it frees both hands to operate the tool.
- ix. Never carry a tool by the cord or yank it to disconnect it from the receptacle. Keep the cord from heat, oil, and sharp edges.
- x. Before connecting any tool to a power source, be sure that the panel either has a built in GFCI system, or get a GFCI pigtail and plug into the base of the power source.
- xi. The guards on portable angle grinders need to be adjusted properly to protect the user from flying debris and the possibility of wheel failure.
- xii. Portable electric angle grinders shall not be used unless equipped with a dead man stopping feature. Portable right angle grinders may only be used with cutting disc as a last resort when no other method can be used.
- xiii. All portable angle grinders shall be equipped with handles. Supplier Personnel shall have one hand on the dead man switch and one on the grinder handle at all times. Work benches are to be utilized to hold materials when practical for using angle grinders.
- xiv. Check all grinding wheels to assure that they exceed the maximum RPM rating for the grinder.
- xv. Type 1 cutting discs require a fully enclosed guard. See the manufacturer's information and make sure to have these guards available if cutting with type 1 cutting discs will be performed.
- xvi. Gasoline powered cut off saws shall be inspected before each use. These saws shall only be used with the proper blades, and shall only be used to cut metal (no aluminum cutting

allowed) or concrete. There shall be documented training by Supplier on the proper use, maintenance, and PPE requirements shall be conducted prior to usage.

- xvii. Gasoline powered cut off saws shall only be used with on materials that are secured. These saws shall not be allowed to be used on loose materials.
- xviii. A quarterly assured grounding inspection is required of all electrical cord, panels, tools, and equipment. A color coding process (one color per quarter) shall be developed and utilized for identifying if current inspection has been completed.
- xix. When using a grinder or a saw on concrete, wetting methods will be used to reduce silica dust exposure.

46. Compressed Air

- A. Supplier shall not use compressed air to clean work clothing, and Supplier shall release pressure in the hose before removing the hose connection from the supply.
- B. All air hoses ½ inch and larger inside diameter shall have a safety device on every branch line to reduce pressure in case of hose failure. All those connections shall be pinned to prevent hose displacement, and have whip checks in place and tightened.

47. Compressed Gas

- A. Supplier shall be responsible for the following obligations:
 - i. All compressed gas cylinders shall be stored with their caps in place and secured in a vertical position with chain or with other non-combustible material. Oxygen and fuel gases shall not be stored together. They shall be separated by 20 feet or ½ hour fire resistant barrier 5 feet high. All compressed gas cylinders shall be transported in a secured and upright position.
 - ii. Protective hard hat devices shall be installed on oxygen and acetylene gauge assemblies.
 - iii. Do not hoist compressed gas cylinders by the valve caps.
 - iv. Regulators shall be turned off and lines bled out when not in use and when leaving for the day.
 - v. Flash back arrestors must be on and in use at the gauge with acetylene and oxygen equipment.
 - vi. When welding is performed near other workers and in the line of sight, adequate flameproof screens or shields shall be installed to protect from welding flash.
 - vii. Compressed gas cylinders are not to be taken into confined spaces.
 - viii. Areas of storage for compressed gases shall be clearly identified with associated signage to include full, empty and no smoking, open flame requirements.
 - ix. Compressed gas cylinder storage below overhead Work shall be adequately protected from dropped objects and hot Work activities.

48. Motor Vehicles, Site Equipment and Trailers

- A. Supplier Personnel shall follow the following guidelines on Purchaser's Premises, including property that will be turned over to Purchaser upon completion, but does not include personal vehicles outside of Purchaser's Premises.
- i. A valid state driver's license is required to operate a motor vehicle on Purchaser's Premises.
 - ii. Seat belts must be worn while driving or riding in a vehicle while on Purchaser's Premises and anytime while operating a piece of equipment where a seatbelt is provided.
 - iii. All Supplier and Subcontractor vehicles and equipment are to have a company logo on them for identification. Magnetic logos are acceptable.
 - iv. "Circle for Safety" must be used to assure safe movement. "Circle for Safety" is the process of walking around the vehicle to recognize hazards and take appropriate action to prevent an accident.
 - v. Park vehicles in such a manner that they can later be driven forward out of the parking space, if practical. This is not required when backing creates a greater hazard (such as in a public parking lot when a public vehicle is directly behind you). Angled parking spaces do not require backing in.
 - vi. If a coworker is available, use that Person as a spotter when backing. The spotter must not stand between the vehicle which is backing and a fixed object (i.e. other parked vehicles, walls, etc.). The operator must keep their eyes on the spotter.
 - vii. No Supplier personnel or subcontractors shall operate any covered vehicle in reverse unless:
 - o The covered vehicle has a reverse signal alarm audible above the surrounding noise level and;
 - o The covered vehicle is operated in reverse only when a designated observer or ground guide signals that it is safe to do so or before operating the covered vehicle in reverse, the driver visually determines that no employee is in the path of the covered vehicle.
 - viii. Covered vehicles capable of having a reverse signal alarm installed (either direct from the manufacturer or as a separate installation of a commercially available reverse signal alarm) shall be equipped with reverse signal alarms
 - ix. Where immediate correction is not feasible, covered vehicles equipped with a reverse signal alarm that is not operational or is not functioning properly shall be either:
 - o Operated in reverse only when a designated observer or ground guide signals that it is safe to do so; or
 - o Removed from service until the reverse signal alarm is repaired.
 - x. Covered vehicles with operable video or similar technological capability used by the driver and capable of providing the driver with a full view behind the vehicle are exempt from requirements identified in items (vii) through (xiv) of this section.

- xi. When an employee is required to function as a designated observer/ground guide during reverse signaling activities (e.g. giving verbal instructions to drivers, signaling to drivers once reverse operation of the covered vehicle has begun), the designated observer/ground guide shall:
 - Not engage in any activities other than those related to the covered vehicle being signaled;
 - Not use personal cellular phones, personal head phones or similar items that could pose a distraction for the designated observer/ground guide;
 - Be provided with and wear a safety vest or jacket in orange, yellow, strong yellow green or fluorescent versions of these colors that meets Class II Hi-Visibility standards;
 - Be provided with and wear during nighttime operations a safety vest or jacket with retroreflective material in orange, yellow, white, silver, strong yellow green or a fluorescent version of these colors and shall be visible at a minimum distance of 1,000 feet and shall meet Class II Hi-Visibility standards.
 - Not cross behind in close proximity to a covered vehicle while it is operating in reverse;
 - Always maintain visual contact with the driver of the covered vehicle while it is operating in reverse; and
 - Maintain a safe working distance from the covered vehicle.
- xii. When using a designated observer/ground guide, no driver of a covered vehicle shall operate in reverse unless they maintain constant visual contact with the designated observer/ground guide. If visual contact is lost, the driver shall immediately stop the vehicle until visual contact is regained and a positive indication is received from the designated observer/ground guide to restart reverse operations.
- xiii. While an employee is functioning as the designated observer/ground guide during reverse signaling activities (e.g., collecting tickets from drivers, giving verbal instructions to drivers, signaling to drivers once reverse operation of the covered vehicle has begun), the designated observer/ground guide shall:
 - Not engage in any activities other than those related to the covered vehicle being signaled;
 - Not use personal cellular phones, personal head phones or similar items that could pose a distraction for the designated observer/ground guide;
 - Be provided with and wear during daytime operations a safety vest or jacket in orange, yellow, strong yellow green or fluorescent versions of these colors;
 - Be provided with and wear during nighttime operations a safety vest or jacket with retroreflective material in orange, yellow, white, silver, strong yellow green or a fluorescent version of these colors and shall be visible at a minimum distance of 1,000 feet;
 - Not cross behind in close proximity to a covered vehicle while it is operating in reverse;

- Always maintain visual contact with the driver of the covered vehicle while it is operating in reverse; and
 - Maintain a safe working distance from the covered vehicle.
- xiv. When using a designated observer/ground guide, no driver of a covered vehicle shall operate in reverse unless they maintain constant visual contact with the designated observer/ground guide. If visual contact is lost, the driver shall immediately stop the vehicle until visual contact is regained and a positive indication is received from the designated observer/ground guide to restart reverse operations.
 - xv. Set the parking brake on all parked vehicles. Place standard transmission vehicles in the lowest gear to prevent rolling.
 - xvi. All motorized vehicles shall be equipped with an adequate fire extinguisher available and readily accessible to the operator.
 - xvii. All site equipment including UTV's shall have roll over protection systems (ROPS) installed and seatbelts.
 - xviii. All UTV's/ Carts and Skid Steers shall have hi-visibility safety flag extending a minimum of 6 feet from its attachment point to help with visibility.
 - xix. Skid steers utilized with fork attachments shall follow all forklifts regulations.
 - xx. All vehicles with outriggers shall utilize outrigger pads or crane mats for stability.
 - xxi. Do not work beneath, get into, or onto vehicles which are raised with floor jacks, bumper jacks or chain hoist unless the vehicle is resting on an approved stationary support stand(s).
 - xxii. When vehicles are undergoing repairs, do not start, move, or operate the vehicle unless the operator is assured by a visual check that it is safe to do so.
 - xxiii. Do not ride in the back of pickup trucks, trailers, or other similar equipment being towed unless the item is specifically designed for this purpose and equipped with adequate safety devices.
 - xxiv. Loose items should be secured or otherwise positioned within the vehicle to prevent occupant injury in the event of a vehicle accident.
 - xxv. Earth hauling vehicles shall have emergency brake set, left in gear (manual) and wheels chocked when parked.
 - xxvi. When heavy earth hauling roads go up or down steep grades with the potential for the vehicle to roll over or slide into a ditch, berms are required.
 - xxvii. Heavy earth hauling roads shall be closed if there is sufficient inclement weather to endanger the operators.
 - xxviii. Concrete trucks shall have a spring loaded safety gate for washout platforms greater than 6 feet. Personnel on these platforms without these spring loaded safety gates shall be considered a serious safety violation and treated as such.

Note: It is Supplier's responsibility to hold a meeting with the concrete truck company(ies) and assure that they are aware of this requirement before the onset of Work.

- xxix. Concrete trucks are not allowed to travel on our projects with more than one section of chute attached.
- xxx. Unattended vehicles shall not be left running.
- xxxi. Vehicles shall be maintained in safe operating condition with windshields and windows kept clean for visibility. Vehicle condition shall be determined by Purchaser at its discretion.
- xxxii. When feasible, maintenance and fluid changes are to be performed at off-site property to avoid environmental risks.
- xxxiii. Equipment used for demolition, grubbing, and clearing shall be equipped with grizzly bars over the windows to protect the occupant.
- xxxiv. All mirrors from the manufacturer shall be on equipment and adjusted properly.
- xxxv. Broken mirrors, missing mirrors, and windows shall be replaced before being allowed to operate.
- xxxvi. Supplier shall set up an initial inspection plan for all equipment arriving for Work on-site. All vehicles and attachments shall be properly inspected prior to being allowed on-site.
- xxxvii. All vehicles with outriggers shall utilize outrigger pads or crane mats for stability.

49. Cranes/Rigging

A. Supplier shall be responsible for the following obligations:

- i. Supplier must perform its Work in compliance with all applicable requirements of Va. Code Ann. § 59.1-406-414, et. seq., Overhead High Voltage Line Safety Act, if performing Work in Virginia. If performing Work outside Virginia, Supplier shall follow that particular State's overhead high voltage line safety act, if applicable.
- ii. Supplier shall determine conditions in which cranes shall not operate. This shall include weather conditions. This shall also include a lay down plan for the boom in the event of severe weather.
- iii. Supplier shall develop and submit for review a rigging/lifting plan for all lifts meeting the following criteria: load exceeds 2000 pounds; two or more lifting devices are required; transporting load over operating or energized equipment; problematic past lifts with similar equipment; or plan deemed appropriate by personnel supervising or involved in activity.
- iv. Cranes shall be equipped with equipment to determine wind speed and direction.
- v. Cranes shall be grounded as determined by Purchaser. Grounding cable shall be 2/0 gauge. Clamps shall be designed for 2/0 grounding cable and not be alligator style.

- vi. Pads or crane mats are to be used for all cranes equipped with outriggers. Any pads seen breaking shall be replaced immediately. The crane shall be on a firm/stable surface and leveled before lifting.
- vii. Cranes are to be operated only by National Commission for the Certification of Crane Operators (NCCCO) Certified Crane Operators (CCO) for the type of crane that shall be operated. Other certifications shall not be acceptable. This certification shall include the required operator evaluations as specified in 29 CFR 1926.1427 (a) and (f). Evaluations shall be conducted by a third party evaluator. A copy of the license and evaluations shall be kept on file at the job site and provided if requested by the Purchaser Project Safety Representative.
- viii. During assembly/disassembly do not unlock or remove pins unless sections are blocked and secure (stable).
- ix. Fully extend outriggers before lifting.
- x. Barricade accessible areas inside the crane's swing radius with red Danger tape. During lifting operations, no one is to enter this area.
- xi. Supplier shall determine if any part of the equipment, load line or load (including rigging and lifting accessories), if operated up to the equipment's maximum working radius in the Work zone, could get closer than 20 feet to a power line. If so the proper precautions in the OSHA standard must be followed. Further, Supplier shall watch for overhead electric power lines and maintain at least a 20-foot safe working clearance from the lines. For voltage 50 kV or higher the distance shall be 10 feet + .4 inches for each 1kV above 50 kV.
- xii. Inspect all rigging prior to use. Do not wrap hoist lines around the load. Wire rope, chain and synthetic slings shall have required weight rating tags present. Weight rating tags must be legible.
- xiii. Be sure to use the correct load chart for the crane's current configuration and setup, the load weight, and lift path.
- xiv. Do not exceed the load chart capacity while making lifts.
- xv. Raise the load a few inches, hold, verify capacity/balance, and test brake system before delivering load.
- xvi. Do not move loads over workers, buildings, or structures where people are located.
- xvii. Be sure to follow signals and manufacturer instructions while operating cranes.
- xviii. Use tag lines or other suitable device to control loads being handled by hoisting equipment. Ensure tag line is long enough that workers can remain a safe distance from the load in the event of failure.
- xix. Dynamic loading shall require a load indicator.

- xx. Supplier shall maintain a copy of the current annual and monthly inspection of cranes. Documentation of these inspections shall be kept at the Work site or with the crane, and shall be available to Purchaser.
- xxi. A current annual inspection shall be submitted to Purchaser's Project Safety Representative for each crane brought on-site prior to use and when the inspection is renewed. In the event of an incident Purchaser reserves the right to have Supplier re-inspect the crane or rigging components at Supplier's expense.
- xxii. Supplier shall perform documented monthly wire rope and hook inspections of cranes.
- xxiii. All cranes shall have general purpose spill response kits on hand. The kit shall be labeled "Spill Kit."
- xxiv. Custom lifting devices, spreader beams, hooks and monorails shall be marked to indicate their safe working load and shall have documentation indicating that the equipment has been designed and inspected by a professional engineer ("PE"). Monorails shall be inspected to ensure stops are in place prior to being placed in service.
- xxv. All lifting eyes shall have shoulders.
- xxvi. When lifting plate steel vertically with clamping devices, the hardness of steel must be determined to see if lifting device is adequate.
- xxvii. Cranes, beams, tuggers, and monorails installed by Supplier shall be marked and tested properly at Supplier's expense. Supplier shall assure that the building or all structures for supporting cranes, beams, tuggers, and monorails shall be designed by a PE and be of supporting the intended loads. . Supplier shall provide documentation of design and installation from a third party for both temporary and permanent equipment at supplier's expense.
- xxviii. Loose items shall either be 100% connected by mechanical means (rigged or wired), or the area beneath shall be red barricaded, i.e., bolts, steel sheets, wedges, pins, grating installation.
- xxix. Protect rigging from edges with softeners.
- xxx. Supplier shall properly store rigging equipment at the end of each Work shift. Rigging shall not be stored on the ground or in the mud.
- xxxi. Crane computer and safety systems shall not be removed/bypassed/overridden. If bypass/override is required, Supplier shall provide to purchaser a written evaluation and plan that identifies the reasoning for the removal/bypass/override, limitations of the equipment and precautions to be put in place due to the removal/bypass/override condition. Removal/bypass/override of systems is only permitted as an absolute last resort. All other means shall be employed, including rental of other equipment, to avoid this condition.

50. Forklift

- A. Supplier shall be responsible for the following obligations:
 - i. Operators shall be trained by a certified third party forklift trainer.

- ii. All forklifts shall be inspected and documented by each operator daily. This documentation shall be kept in the cab of the forklift.
- iii. No stacking loads above the carriage back rest.

Note: Supplier shall not allow any modifications to be made to raise the height of the carriage back rest.

- iv. Loads without designed lifting points shall be secured back to the carriage with adequate rigging.
- v. Loads on forks, including end loaders, skid steers, etc., shall not extend wider than 10 feet beyond the center of the carriage. If the load is wider a wide load stabilizer attachment adequate for the load shall be utilized along with spotters on both ends of the load.
- vi. Work platforms are not allowed to be attached to forklifts/telehandlers.
- vii. No rigging off of the forks.
- viii. Holes shall not be drilled in forks.
- ix. The back rest shall be in place, forklifts without back rests will be red tagged and removed from service immediately.
- x. Fork extensions shall not be used.
- xi. Roadways and surfaces shall be properly maintained for forklifts/telehandlers to be operated with loads.
- xii. Materials shall only be dumped from metal dumping trash hoppers.
- xiii. Regular forklifts (of the non-rough terrain variety) shall not be allowed to operate off road.
- xiv. Spotters are required for all loads where operators view is obstructed, during maneuvers in tight congested areas.

51. Drilling, Digging and Cutting Permit (DDC Permit)

A. Supplier shall be responsible for the following obligations for all Subcontractors:

- i. Purchaser, unless otherwise agreed upon, shall issue a DDC permit prior to Work to minimize the risk of injury or property damage from inadvertent contact with unknown, hidden, or buried sources such as electrical or gas lines.
- ii. Areas shall be scanned for utilities before Work starts. All utilities will be marked when scanned to designate their location.
- iii. Digging, Drilling, and Cutting activities shall not take place within 36-inches horizontally of a line without pot holing or hand digging to locate the line first.
- iv. Supplier shall develop procedures for line location prior to ground penetration. All 811 records shall be kept on-site and made available to Purchaser upon request.

- v. If an underground cable is located during any excavation or trenching tasks, stop all associated Work and immediately notify Supplier's leadership and the Purchaser Power Generation-site leadership. Do not proceed with the excavation or trenching task until the cable is identified and confirmed de-energized or properly protected from damage.
- vi. Prior to starting any operation, Supplier shall take the following precautions:
 - All power tools and mechanical equipment such as concrete breakers, drills, and backhoes shall be effectively grounded with a 2/0 ground lead.
 - Class II rubber gloves and protective rubber boots shall be worn.
 - Class II rubber gloves shall meet testing requirements as outlined in the OSHA standards prior to use.

52. Electrical

- A. Supplier shall be responsible for the following obligations:
 - i. Temporary lighting shall be hung by the hanger on the protective bulb cage, not from the power supply cord.
 - ii. Light bulbs and bulb guards shall be maintained in a safe condition. Broken bulbs and cages shall be replaced as soon as possible.
 - iii. Extension cords and welding leads shall be suspended out of walkways by non-conductive material.
 - iv. Ground the frames of all welding machines unless they are internally grounded.

53. Vacuum Trucks

- A. Supplier shall assure that vacuum hoses shall be grounded internally.
- B. Vacuum trucks shall be grounded properly.
- C. Vacuum hoses shall have a broom stick or similar device to guide the end of the hose.

54. Hydroblasting

- A. Supplier shall be responsible for the following obligations.
 - i. Two Deadman switches shall be on all lances.
 - ii. A shut down valve will be built into the hose with a Person monitoring the blasters activities within sight of the blaster when feasible.
 - iii. Meta-tarsal hard toed shoes or boots made specifically for hydro blasting shall be used.
 - iv. All hoses shall be checked for integrity and bad hoses replaced before operation.
 - v. The lance length shall meet manufacturer's specifications, shortening of lances for convenience is not allowed.

55. Fueling Storage Areas

- A. Flammable and combustible storage areas shall be designated by Supplier for materials Supplier provides. In these cases, Supplier shall be responsible for the following obligations:
- i. Spill kits shall be provided where necessary.
 - ii. The dispensing nozzle shall be an approved automatic-closing type without a latch-open device to prevent overfilling.
 - iii. There shall be no smoking or open flames in the areas used for storage of flammable or combustible liquids, and gases.
 - iv. Conspicuous and legible signs prohibiting smoking and open flames shall be posted by Supplier.
 - v. The motors of all equipment being fueled shall be shut off during the fueling operation.
 - vi. The fueling area shall be provided with at least one fire extinguisher by Supplier having a rating of no less than 20 pounds B/C. Fire extinguishers for this area shall be placed within 50' of the location of the fueling area.
 - vii. Each storage tank shall have a containment provided by Supplier that meets OSHA requirements prior to tank being filled.
 - viii. Flammable liquids in small amounts (5 gallons or less) shall be stored in self-closing metal safety cans with a flash-arresting screen. These shall be DOT approved.
 - ix. Flammable/combustible fuel storage tanks and flammable/combustible cabinets shall be grounded.
 - x. All flammable/combustible storage tanks, both mobile and stationary, shall be labeled in accordance with state and federal guidelines.

56. Combustible Dust

- A. Purchaser's Premises that are fueled by coal and/or biomass have combustible dusts on-site. The combustible dusts that may be present include coal dust and wood dust. Supplier must determine combustibility of dust before Work commences in areas where dust is present.
- B. Prior to commencing Work in any enclosed coal and/or biomass handling areas (examples include bunker room, crusher house, reclaim tunnel) or other areas where combustible dust is present, Supplier shall discuss and follow applicable safe Work practices with Purchaser's Project Safety Representative.

Safe Work practices include, but are not limited to:

- i. Cleaning combustible dust covered surfaces in a manner that minimizes the generation of dust clouds. Water washing and vacuuming are preferred methods.
- ii. Blowing down with compressed air or steam only when other means of cleaning are shown to be infeasible. An Infrequent Operating Procedure (IOP) must be developed by Supplier and

made available to Purchaser upon request. Vigorous sweeping or blowing down with steam or compressed air produces dust clouds and shall be permitted only where the following requirements are met:

- a. Area and equipment shall be vacuumed prior to blowdown.
- b. Electrical equipment not suitable for Class II locations and other sources of ignition shall be shut down or removed from the area.
- c. Only low-pressure steam or compressed air, not exceeding a gauge pressure of 15 psi shall be used.
- d. No hot surfaces or flames capable of igniting a dust cloud or layer shall exist in the area.
- iii. Using electrical tools rated for use in Class II hazardous locations. Unrated portable equipment shall not be operated in dusty environments.
- iv. Not performing hot Work within 35 feet of combustible dust accumulations.
- v. Giving consideration to heat transfer through the walls of combustible dust containing equipment (e.g., silos, bunkers, ductwork, dust collectors) While performing hot Work.
- vi. Shutting down duct work, such as the dust collection system, or conveyor belts that might carry sparks to distant combustible dust, during welding and burning operations. If equipment will be shielded instead, an IOP must be developed including safety measures that will be taken.
- vii. Not using cartridge actuated tools in areas where combustible material is produced, processed, or present unless all machinery is shut down and the area is cleaned and inspected to ensure the removal of all accumulations of combustible material.
- viii. Using only forklifts designed for use in Class II, Division 2 locations including types DY, EE, EX or DX classified.
- C. Supplier shall inform the Purchaser Project Safety Representative of any additional dust discovered during the course of Work and through consultation with Purchaser's Project Safety Representative it will be determined if additional safe Work practices are necessary.

57. Excavations

- A. All excavations deeper than 4 feet shall be sloped at 1.5:1 ratio. No Benching Allowed. Documentation of soil classification shall be provided to Purchaser's Project Safety Representative.
- B. When sloping at 1.5:1 is impractical or impossible, then trench boxes, shoring, or interlocked corrugated metal sheeting may be used.
- C. Inspection of these excavations must include evaluating fall hazards. Fall hazards 4' and greater must be eliminated or properly barricaded for excavations, trench boxes, and shoring.
- D. Competent Personnel shall be trained by third party company and documentation provided prior to commencing of excavations.

- E. Excavations shall be inspected daily with the permit posted in a mailbox at the entrance to the excavation. Inspections shall be performed as required by OSHA guidelines.
- F. A competent Person list shall be provided before any excavations take place. A Person is not considered competent until Supplier provides documentation of training. Supplier is responsible for assuring the training and condition of excavations is safe and in accordance with the OSHA excavation standards.
- G. The competent Person shall be held accountable for any issues not meeting the OSHA requirements. If an excavation is found, at the sole discretion of Purchaser, to be Immediately Dangerous to Life and Health (IDLH), the violation shall be treated as a serious safety violation and the Competent Person shall be held accountable up to and including being added to the Purchaser Barred List for a 5 year period.
- H. Access and egress in and out of excavations shall be provided by an adjustable access system (manufactured stairway with adjustable step angle) in addition to a handrail capable of holding a 200 lb. load. Trench ladders and earthen ramps are not allowed for access/egress.
- I. Spoil piles shall be kept a minimum of 3 feet away from the edge of excavations.
- J. Supplier shall make sure that the angle of repose in this chart is followed:
 - Earth Maximum of 45 degrees
 - Gravel Maximum of 45 degrees
 - Sand (dry) Maximum of 34 degrees
 - Sand (wet) Maximum of 45 degrees
 - Snow Maximum of 38 degrees
- K. Trenches and excavations upon back filling shall be compacted at 100% compaction.
- L. Excavations shall be protected by the use of danger barricade tape along all open sides of the excavation.

58. Inclement Weather

A. Weather Alerts

- i. Severe weather threats shall be monitored via a National Weather Service radio, local radio stations and internet based Doppler Radar. Whenever a weather advisory, watch, or warning is issued for the project area, this information shall be forwarded to field Personnel via radio communications by Supplier's Project Safety Representative or his/her designee. This radio communication shall be broadcast on all channels employed at the project and shall begin with the words Weather Alert, Weather Alert, Weather Alert. The announcer shall then describe the alert, along with any instructions, such as the need for a stand-down or evacuation.

B. Lightning

- i. Due to the hazards associated with lightning, Work activities on-site shall be adjusted per instructions below based on activity in the area of the site.
- ii. The monitoring of lightning is to be performed by an instrument designed for lightning detection, an approved weather alert radio located on-site, or via the use of a weather monitoring application from an approved and reliable source (i.e. WeatherBug)
- iii. All site Personnel shall adhere to these instructions.
- iv. Lightning Safety Requirements:
 - a. Supplier's Project Safety Representative is responsible for lightning monitoring. Lighting monitoring shall be documented on a "lighting log" to ensure adequate monitoring and response to site activity. When lightning activity threatens the site, the following incremental steps shall be taken to minimize Personnel exposure.
 - b. **Criteria: Lightning detected at 30 miles.**

Actions:

 - Notify site Personnel of increased lightning hazard.
 - Prepare to cease outdoor activity.
 - c. **Criteria: Lightning detected at 15 miles.**

Actions:

 - Cease outdoor activity other than securing equipment.
 - Personnel not occupied with securing equipment shall move to designated shelters.
 - d. **Criteria: Lightning detected at 8 miles.**

Actions:

 - Immediate cessation of all outdoor activity. Abandon efforts to secure equipment if not completed.
 - All Personnel take cover in designated shelter.
- v. A Stand-down shall last for 15 minutes from the last lightning within the 15 mile radius.

Reference: National Safety Institute.

- C. Tornados. Although tornados can strike anywhere and at any time, they are most prevalent during the months of April, May, and June. Our best defense from tornado hazards is the early warning system referred to in the "Weather Alerts" paragraph above. The following shall serve as a guideline when tornado hazards threaten the site:
 - i. Tornado Watch – A tornado watch means that conditions are favorable for the formation of tornados. Persons in the watch area should stay alert for rapidly changing weather conditions. The site shall typically not be evacuated for a tornado watch. However, in

addition to the weather alert announcement, Supplier shall maintain constant vigilance though monitoring the media referenced above and physically monitoring conditions at the site.

- ii. Tornado Warning – A tornado warning means that a tornado has been sighted or is indicated by weather radar. Individuals in the warning area should seek shelter immediately. If a Tornado Warning is issued for the project area or conditions indicate that a warning is eminent, Supplier shall order a site evacuation. Suggested evacuation routes shall be issued along with the evacuation notice.
- iii. Tornado Shelter – There are no tornado shelters within the project boundaries. If someone is unexpectedly caught in the direct path of a tornado, vehicles, trailers, and even heavy equipment are not safe havens. In the event that they cannot escape to a sturdy (preferably underground) shelter, they should attempt to identify a low lying area such as a ditch or culvert and lay as low as possible, covering their head with their arms until the danger has passed. Examples of these low lying areas would be the ditches along roads.

D. Hurricanes and Tropical Storms. Projects located such that hurricanes and/or tropical storms could produce hazards to people and property through high winds and flooding. In the event of impending severe weather associated with these phenomena, the following shall serve as guidelines when these storms threaten the project:

- i. Tropical Cyclone Public Advisory - Whenever a tropical depression, tropical storm, or hurricane is formed, the NOAA National Hurricane Center (NHC) issues tropical cyclone advisory products every 6 hours at 5:00 a.m., 11:00 a.m., 5:00 p.m., and 11:00 p.m. EDT. These products can be found at www.hurricanes.gov and on TV, radio, cell phones, etc.
 - a. During this phase, Supplier shall specifically assign a storm watcher who shall monitor the progress of the storm and track its direction of travel. At this point, all project entities are to be alerted of the storms location and tracking. If the storm is tracking toward the project site, Supplier's Project Safety Representative and Construction Manager, in conjunction with the Purchaser's Project Safety Representative and site managers, shall assess project conditions at that stage of construction (people, equipment, tools, components, etc.) in preparation for a possible direct hit.
 - b. If the storm tracking indicates a potential hit or near miss, Supplier shall order that the project begin preparations to make the site as secure as possible.
 - c. At this point, Supplier shall create and post a list of "Critical Personnel" required for the final phases of securing the site in the event of an evacuation.
 - d. Note that tropical storms and hurricanes are not a point on the map and adverse effects such as heavy rain can reach out for hundreds of miles. During this period, close attention must be paid to local forecasts.
- ii. Hurricane/Tropical Storm Watch - Hurricane watches indicate that hurricane conditions (sustained winds of 74 mph or greater) are possible within your area. Tropical storm watches indicates that tropical storm conditions (sustained winds of 39-73 mph) are possible in your area. Both are issued 48-hours before anticipated arrival of the storm.
 - a. **A watch shall be regarded as an imminent threat and a trigger for final evasive**

action. All but Critical Personnel shall evacuate the project in pursuit of safe haven.

- b. Critical Personnel must be evacuated no later than 12-hours of the initial issue of a watch in pursuit of safe haven unless local conditions indicate an earlier evacuation.

E. Weather Preparedness (General Requirements)

- i. Pallets and other loose waste should be placed in dumpsters and covered.
- ii. Other loose materials should be banded together.
- iii. Fuel tanks and tower tanks should be secured in place. Elevated tanks should be lowered and secured in place.
- iv. All computer or other electronic devices should be unplugged and placed on elevated platforms, such as tables, within the construction trailers. If possible, they should be placed in a connex.
- v. All pertinent documentation should be boxed and if possible, removed to a safe area or evacuated with Personnel. If removal is not possible, place the boxed documentation on an elevated platform within the construction trailer. If possible, they should be placed in a connex.
- vi. All electrical power should be disconnected and locked out.

F. Evacuation Route and Potential Safe Haven

- i. Supplier shall establish post and train Personnel on project hurricane evacuation routes and safe haven areas.

G. Other Tropical Storm Related Preparations

- i. Although they can strike at any time, the tropical storm season is generally June 1st through October 31st. During this time, the project must be maintained in a continuous state of preparedness. During this time:
 - a. All unnecessary equipment and materials should be removed from the site in order to expedite final preparations (*Advisory Stage*).
 - b. All loose materials shall be banded or otherwise secured to prevent flying projectiles (*Advisory Stage*).
 - c. Open excavations shall be limited to that which can be backfilled quickly. (*Advisory Stage*).
 - d. Crated equipment shall be secured by tie-downs or other appropriate measures (*Watch Stage*).
 - e. Crane booms shall be lowered and secured per manufacturer's recommendations to prevent tip-over (*Watch Stage*).

- f. Portable toilets shall be emptied and either removed from site or banded together to prevent bio-hazard releases (*Watch Stage*).

59. Miscellaneous

- A. Supplier shall obtain permission from Purchaser prior to modifying, adjusting, starting, stopping, testing, operating, or isolating Purchaser controlled equipment or systems.
- B. If Supplier uses non-English speaking Supplier Personnel, then Supplier shall provide an interpreter of that language for each crew at a minimum ratio of 1 translator per crew. If the crew is larger than 10 Personnel, then additional translators shall be provided at 1:6. The interpreter shall be immediately available to the non-English speaking workforce at all times and in all locations on Purchaser's Premises (radio communication is not acceptable). Supplier shall provide appropriate and equivalent orientations, signage, and forms for all non-English speaking workforces. If English forms are used, Supplier must provide an interpreter who explains the form in detail, i.e., during Pre-job briefings.
- C. Supplier shall make Purchaser aware of any temporary or permanent safety variances granted by any regulatory agency and provide Purchaser with written copies. Any variance granted by these agencies must also be in accordance with these Supplemental Terms and Conditions and may be denied at the sole discretion of Purchaser's Project Safety Representative.
- D. Supplier is required to provide Purchaser the number of hours Supplier Personnel worked during the previous week by noon EST the second working day of each week.
- E. Supplier shall immediately notify Purchaser of any visits, inspections or investigations of Purchaser's Premises, including any requests therefore or notices thereof, by regulatory agents, or regulatory agencies involving safety or health compliance issues.
- F. Any modification or repair of equipment and tools by Supplier shall be in accordance with the original manufacturer's specifications. Modifications to equipment shall not be made without receiving written permission from the original manufacturer. Homemade or job-made tools are not allowed on Purchaser projects. Equipment and tools shall be inspected, maintained, and operated according to the manufacturer's specifications and recommendations.
- G. When driving stakes for barricades, fencing (including silt fencing), or for other reasons, a sledgehammer is not allowed to be used. Instead a pneumatic, gasoline powered or hand post/stake driver/ram shall be used to reduce the chances of injuries. If the stake driver will not work, Supplier must get the approval from Purchaser's Project Safety Representative to use an alternate solution such as tongs, guides, or other means.
- H. Loose materials and items shall be secured to prevent them from falling to lower levels.
- I. Where practical for overhead Work, hand rails shall have a mesh to prevent items from falling between rails to lower levels.
- J. Steel erection plans shall be provided and discussed with Purchaser prior to the beginning of Work. These shall include at a minimum; detailed fall protection methods, bolt up procedures, storage of materials, exclusion zones, and other safety precautions.

- K. All T-posts being utilized on-site shall have rebar caps to prevent injury. Caps without impalement hazard protection (mushroom caps) are not allowed on Purchaser projects.
 - L. Any gaps between matting materials shall be filled in to eliminate the holes. Periodic maintenance may be required to keep these gaps filled.
 - M. Collars shall be utilized and adjusted properly for wire spools to eliminate the risk of the spool falling off.
 - N. Pocket knives are not allowed on-site.
 - O. Fully Automatic Smart Safety Knives with Auto-retracting blades are the only razor knives allowed on Purchaser projects.

Note: this is not a self-retracting razor knife, it is auto-retracting.
 - P. Pallets shall not be utilized as walking, working surface.
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Part Three – Environmental Requirements

1. Scope

The environmental requirements set forth in these Supplemental Terms and Conditions are not all-inclusive, and are intended to supplement, not supplant, environmental requirements contained in (a) Environmental Laws, (b) Supplier's own environmental requirements, (c) the environmental requirements of any Subcontractor, or (d) any additional site-specific environmental requirement provided to Supplier by Purchaser for Purchaser's Premises. Supplier has the general duty to comply with all applicable Environmental Laws. In the event of any conflict among the provisions of these Supplemental Terms and Conditions, Supplier shall abide by the most stringent provision.

2. Premises-Specific Requirements; Environmental Protection Plan

(a) Supplier must follow and adhere to any Purchaser Premises-specific environmental policies and procedures, including, but not limited to, environmental policies and procedures applicable to the Work provided to Supplier prior to the start of Work or from time to time during performance of the Work. Supplier shall inform Supplier Personnel promptly of such environmental policies and procedures and the obligation to comply during site-specific training or required safety briefings. Supplier is responsible to ensure all Supplier Personnel receive, understand, and comply with all such environmental policies and procedures.

(b) Supplier shall implement appropriate pollution prevention measures in conducting the Work on Purchaser's Premises. Pollution prevention measures shall comply with Environmental Laws and shall include best management practices to avoid, minimize and mitigate pollution and pollution impacts.

(c) At Purchaser's request, Supplier shall be responsible for developing, administering, implementing and monitoring a written Environmental Protection Plan ("Plan") or equivalent which shall address chemical products, petroleum products, Non-Hazardous Waste, Hazardous Waste, pollution

prevention, employee training, spill response and clean-up, and any other requirements designated by Purchaser's Environmental Compliance Coordinator or designee. All Plans must receive Purchaser's approval prior to commencement of the Work.

3. Management and Disposal of Hazardous Waste

In the event that Supplier's performance of the Work generates Hazardous Waste, Supplier shall collect, handle and manage the Hazardous Waste in accordance with Environmental Laws and follow the requirements as set forth in this Management and Disposal of Hazardous Waste Section. Prior to Supplier's removal of any Hazardous Waste from Purchaser's Premises, Supplier shall confirm with Purchaser's Environmental Compliance Coordinator or designee that Supplier is following the proper procedure for such removal.

(a) **Purchaser Responsible for Hazardous Waste Disposal.** Unless otherwise expressly provided by a provision of the Agreement that takes precedence over these Supplemental Terms and Conditions, the following provisions shall apply with respect to any Hazardous Waste generated by the performance of the Work:

- (i) Purchaser shall be responsible for the disposal of Hazardous Waste.
- (ii) Upon the generation of any Hazardous Waste, Supplier shall provide Purchaser's Environmental Compliance Coordinator or designee with a written description of the Hazardous Waste including, but not limited to, providing any SDS and waste analysis.
- (iii) Purchaser shall be designated as the generator of record for any Hazardous Waste generated, released, or accumulated on Purchaser's Premises by Supplier.
- (iv) For all manifests, Hazardous Waste reports, and other relevant documents relating to Hazardous Waste, Purchaser's Premises EPA Identification Number shall be used. At the option of Purchaser, Supplier may be identified on manifests, hazardous waste reports, and other relevant documents as a co-generator of Hazardous Waste. In the event that Supplier's performance of the Work generates Hazardous Waste and results in a need for an EPA Identification Number for Purchaser's Premises, which previous to the Work did not require one, Supplier shall notify Purchaser's Environmental Compliance Coordinator or designee and Purchaser shall prepare and submit the application or direct Supplier to do so.
- (v) Unless otherwise directed by Purchaser, Purchaser shall sign all manifests and complete, sign, and submit Hazardous Waste reports or other relevant documents relating to Hazardous Waste. If Supplier is directed by Purchaser to sign manifests and complete, sign, and submit Hazardous Waste reports or other relevant documents relating to Hazardous Waste, a copy of all such documents must be submitted to Purchaser's Environmental Compliance Coordinator or designee.
- (vi) Purchaser may, at its discretion, provide Supplier with containers for Hazardous Waste. If Purchaser does not provide waste containers to Supplier then Supplier shall provide its own containers for any Hazardous Waste generated by the performance of the Work. Purchaser shall designate one or more waste storage areas at Purchaser's Premises where such containers are to be placed by Supplier. Supplier shall be responsible for proper labeling and marking of any such containers. Hazardous Waste shall not be placed into a dumpster or any unauthorized container.

(b) **Supplier Responsible for Hazardous Waste Management and Disposal.** The following provisions shall apply with respect to any Hazardous Waste generated by the performance of the Work where (1) Purchaser's Premises does not have an existing EPA Identification Number (and Purchaser has not informed Supplier that an EPA Identification Number will be obtained prior to Supplier's performance of the Work); or (2) Supplier has been designated as the responsible party for the disposal of Hazardous Waste by a provision of the Agreement that takes precedence over these Supplemental Terms and Conditions:

- (i) Upon the generation of any Hazardous Waste, Supplier shall provide Purchaser's Environmental Compliance Coordinator or designee with a written description of the Hazardous Waste which includes the following information:
 - (A) Hazardous Waste quantity including, as applicable, the number and size of drums, tanks, roll-off boxes or other containers associated with such waste;
 - (B) The date on which the Hazardous Waste was generated;
 - (C) A description of the process generating the Hazardous Waste;
 - (D) Any SDS for any raw material; and
 - (E) Contact name and telephone number of the person providing the above information.
- (ii) Supplier shall provide adequate type and sized containers for any Hazardous Waste.
- (iii) Supplier shall make a Hazardous Waste Determination in accordance with 40 CFR 262.11, which may include using generator knowledge or sampling and analysis of waste.
- (iv) Supplier shall arrange for the off-site treatment or disposal of any Hazardous Waste at a facility approved by Purchaser.
- (v) Supplier shall arrange for the transportation of any Hazardous Waste using a transporter approved by Purchaser.
- (vi) Supplier shall, at Purchaser's request, provide Purchaser with any documentation related to the transportation, off-site treatment and/or disposal of any Hazardous Waste.
- (vii) For all manifests, Hazardous Waste reports, and other relevant documents relating to Hazardous Waste, Purchaser's Premises EPA Identification Number shall be used except where Purchaser's Premises does not have an existing EPA Identification Number (and Purchaser has not informed Supplier that an EPA Identification Number will be obtained prior to Supplier's performance of the Work). At the option of Purchaser, Supplier may be identified on manifests, Hazardous Waste reports, and other relevant documents as a co-generator of such Hazardous Waste. Unless otherwise directed by Purchaser, Purchaser shall sign all manifests and complete, sign, and submit Hazardous Waste reports or other relevant documents relating to such Hazardous Waste. If Supplier is directed by Purchaser to sign manifests and complete, sign, and submit Hazardous Waste reports or other relevant documents relating to such Hazardous Waste, a copy of all such

documents must be submitted to Purchaser's Environmental Compliance Coordinator or designee.

- (viii) In the event that Supplier's performance of the Work results in a need for an EPA Identification Number for Purchaser's Premises, which previous to the Work did not require one, Supplier shall prepare and submit the application for the EPA Identification Number unless otherwise directed by Purchaser. If Supplier obtains the EPA Identification Number, Supplier shall sign manifests and complete, sign, and submit Hazardous Waste reports or other relevant documents relating to such Hazardous Waste, and provide a copy of all such documents to Purchaser's Environmental Compliance Coordinator or designee.
- (ix) Supplier shall have primary responsibility for labeling any Hazardous Waste in accordance with all applicable Environmental Laws. Any and all Hazardous Waste labels shall be provided by Supplier provided that Purchaser may, at Purchaser's option, provide such labels.
- (x) Supplier shall ensure that all liquid-containing containers provided by Supplier to contain Hazardous Waste have adequate secondary containment. Secondary containment shall be sized to hold 110% of the capacity of the largest container, constructed of non-earthen material which is compatible with the material being stored, and be of sufficient impermeability to contain the spill for at least 72 hours. Supplier shall obtain prior approval from Purchaser's Environmental Compliance Coordinator or designee for tanks placed on the Premises that contain Hazardous Waste. Supplier shall comply with applicable Environmental Laws for such tanks.

4. Management and Disposal of Non-Hazardous Waste

Unless otherwise expressly provided by a provision of this Agreement that takes precedence over these Supplemental Terms and Conditions the following provisions shall apply with respect to any Non-Hazardous Waste generated by the performance of the Work:

(a) Waste Determination. Supplier shall make a Waste Determination in accordance with 40 CFR 262.11, which may include using generator knowledge or sampling and analysis of waste.

(b) Daily. Supplier shall perform daily project site clean-up and Non-Hazardous Waste disposal and otherwise keep the project site including lay down areas reasonably free from accumulation of waste materials, rubbish, crates, packing material, and other debris resulting from performance of the Work. Supplier shall provide and maintain dumpsters for general construction debris and trash barrels for paper. Supplier shall on a daily basis provide for clean-up of its work areas and dispose of all waste, trash and debris into Supplier-furnished Non-Hazardous Waste dumpsters, barrels, and other containers.

(c) Non-Hazardous Waste Container Requirements. Supplier shall label those Non-Hazardous Waste dumpsters, barrels, and other containers set forth in Section 3(b) above, with the contents of the containers. Supplier shall ensure that all liquid-containing Non-Hazardous Waste containers provided by Supplier have adequate secondary containment. Such secondary containment shall hold one hundred and ten percent (110%) of the capacity of the first container, shall be constructed of non-earthen material which is compatible with the material being stored, and be of sufficient impermeability to contain any spill for at least seventy two (72) hours.

(d) Off-Site Non-Hazardous Waste Disposal. Supplier shall dispose of Non-Hazardous Waste off-project site and such Non-Hazardous Waste containers shall be emptied periodically to avoid overtopping or blowing debris. Supplier shall maintain such Non-Hazardous Waste containers in a manner to prevent the Non-Hazardous Waste from blowing or falling from the containers. Supplier shall dispose of waste at a facility approved by Purchaser's Environmental Compliance Coordinator or designee and using transportation approved by Purchaser's Environmental Compliance Coordinator or designee. Supplier shall, at Purchaser's request, provide Purchaser with all documentation related to such disposal and transportation. If Supplier fails to manage waste disposal in accordance with the provisions of this Agreement, or fails to manage such waste in accordance with any applicable laws, then Purchaser, at its option, may manage such waste including the classification, containerization, storage, transportation and disposal of such waste, and invoice Supplier for all costs incurred in connection therewith including a percentage of the actual costs incurred in an amount equivalent to Supplier's rate sheet mark-up; and Supplier shall promptly reimburse Purchaser for such amounts.

(e) Use of Manpower and Construction Aids for Daily Clean-Up. Supplier shall provide whatever manpower and construction aids are necessary to adequately clean and remove from its work areas all trash, dirt, and debris that results from the operations of Supplier (including offices of Supplier and Purchaser, fabrication and shop areas, lay down areas and warehouses and similar locations). Supplier shall maintain its materials and equipment, construction aids and lay down areas both inside and outside building areas in a neat and orderly fashion. Supplier shall designate lay down areas on the project site within the allowable areas identified and approved by Purchaser. Supplier shall maintain all roads (both external and internal to the project site) reasonably free from any mud, dirt, stones, construction debris, and trash resulting from the Work on a daily basis. Upon notice from Purchaser of any deficiency in the cleanliness of the project site, Supplier shall promptly remedy the deficiencies as directed by Purchaser at Supplier's expense. Should Supplier fail to promptly remedy the deficiencies to Purchaser's satisfaction, Purchaser may perform the required clean-up. Clean-up costs incurred by Purchaser as a result of Supplier's non-performance shall be promptly reimbursed by Supplier.

5. Additional Waste Requirements

The following requirements shall apply to this Agreement regardless of which party is responsible for the disposal of Non-Hazardous Waste and/or Hazardous Waste:

(a) Supplier shall not store, deposit or dispose on Purchaser's Premises any Non-Hazardous Waste and/or Hazardous Waste generated off-site.

(b) Supplier shall not transport or bring onto Purchaser's Premises any Non-Hazardous Waste and/or Hazardous Waste unless such waste is contained within equipment/containers designed for containing and transporting such waste and Supplier is transporting such waste in connection with its performance of the Work.

(c) Supplier shall obtain the prior approval of Purchaser's Environmental Compliance Coordinator or designee prior to the placement and use of any parts washers on Purchaser's Premises.

(d) If Supplier fails to manage Non-Hazardous Waste and/or Hazardous Waste in accordance with the provisions of this Agreement, or fails to manage such waste in accordance with any applicable laws, rules, regulations or ordinances, then Purchaser, at its option, may manage such waste including the classification, containerization, storage, transportation and disposal of such waste, and invoice Supplier for all cost incurred in connection therewith including a percentage of the actual cost incurred in an amount equivalent to Supplier's rate sheet mark-up.

(e) If any of the materials furnished pursuant to the Agreement are designated by Environmental Laws as hazardous or toxic, either in the form to be furnished or as waste upon disposal, Purchaser may direct Supplier to propose a nonhazardous or nontoxic alternative if such an alternative exists.

(f) All unused products and materials furnished by Supplier must be removed from Purchaser's Premises by Supplier when the Work is complete.

(g) Supplier shall not transfer, sell or otherwise convey contaminated materials to employees or other non-Purchaser personnel including, but not limited to, used chemical drums and carboys, surplus pesticides and herbicides, or other materials that have been in contact with chemicals.

(h) Supplier shall secure hoses and power cords with non-conductive materials so they are not in the walking working surface of walkways, scaffolding platforms, or stairways.

(i) Supplier shall not place tools or equipment where they obstruct walkways, stairwells, exits or entranceways to equipment, or fixed ladders.

(j) Supplier shall maintain all work areas in a generally clean condition. Floors, walkways, and working surfaces shall be maintained free of excess dirt and other materials.

(k) All food and drink trash is to be placed in appropriate waste receptacles.

(l) Cigarette butts are to be placed in approved waste receptacles.

(m) Receptacles are to be used to collect spent welding/cutting rods, wire cuttings, tie wrap ends and insulation, etc. as work progresses during the shift.

(n) All demolished material is to be removed from the work site as soon as practical and placed in the appropriate containers.

(o) Scrap metal containers are not to be used for general trash.

(p) Parts removed from equipment and parts to be installed on equipment are to be stored in an organized and neat fashion on the job site, even as work progresses.

(q) All new or removed insulation and lagging are to be stored in an organized and neat fashion on the job site, even as work progresses.

(r) Purchaser will have no obligation with respect to Acceptance or final payment until Supplier has removed all wastes and rubbish relating to the Work, together with all of Supplier's and Subcontractors' tools, scaffolding, equipment, and materials. Supplier shall leave the premises in a clean, neat, and workmanlike condition reasonably satisfactory to Purchaser.

(s) Supplier shall cover grating work areas in order to prevent debris and materials from falling to lower levels.

6. SARA Title III Notifications/Reports

(a) For the purpose of this SARA Title III Notifications/Reports Section, "Hazardous Materials" are defined as any material requiring a SDS under OSHA regulations.

(b) Prior to bringing any Hazardous Materials onto Purchaser's Premises, Supplier shall provide Purchaser's Environmental Compliance Coordinator or designee a SDS and inventory quantity estimate for each Hazardous Material.

(c) Except as provided below in Section 6(d), Purchaser shall make all required SARA Title III Notifications/Reports and pay associated fees in connection with all Hazardous Materials brought onto Purchaser's Premises by Supplier.

(d) If directed to do so by Purchaser's Environmental Compliance Coordinator, Supplier shall, for any Hazardous Materials brought onto Purchaser's Premises which are necessary for the Work (including fuel, lubricants, and job related consumables), be responsible for filing any required SARA Title III Notifications/Reports and paying associated fees, including the following:

- (i) Emergency Planning Notifications (SARA Section 302);
- (ii) Facility Coordinator Notification (SARA Section 303);
- (iii) Emergency Release Reporting (SARA Section 304);
- (iv) SDS/list submission (SARA Section 311); and
- (v) Tier II Inventory Reporting (SARA Section 312).

7. Environmental Permits, Fines, Penalties, Costs, Etc.

(a) Unless otherwise specifically provided by a provision of this Agreement that takes precedence over these Supplemental Terms and Conditions or otherwise directed by Purchaser's authorized representative, Purchaser shall obtain and pay for all Environmental Permits. Supplier may be designated as a co-permittee with Purchaser, when applicable or otherwise required by Purchaser. With the exception of the Environmental Permits or other permits that Purchaser has expressly agreed in writing to obtain, Supplier shall be responsible for obtaining at its sole cost and expense all other permits, licenses and approvals necessary to perform the Work including, but not limited to, any temporary permits associated with the operation of Supplier's equipment where the equipment must be operated in relation to Supplier's performance of the Work.

(b) Supplier shall make itself familiar with and strictly comply with the terms and conditions of any Environmental Permits, whether obtained by Purchaser or Supplier, applicable to the Work.

(c) To the extent arising from Supplier's noncompliance with any Environmental Laws or Environmental Permits pertaining to the Work, Supplier shall be solely responsible for and shall pay directly, or reimburse Purchaser for (i) any and all fines, penalties, damages or corrective actions assessed, directed or agreed to by any court, regulatory agency or other appropriate entity, incurred by Supplier or Purchaser; (ii) any and all costs, fees and expenses incurred by Supplier or Purchaser associated with responding to any action brought or threatened against Supplier or Purchaser by any regulatory agency, entity or Person; and (iii) any and all delays or stop work orders imposed by a government agency or court.

8. Environmental Credits

(a) All Attributes, Efficiency Credits, and/or Emission Reduction Credits as defined below in this Environmental Credits Section, that either party is or may become entitled to claim, own, or benefit from,

in connection with, or as a result of, the Work and/or Materials shall be held, controlled, and owned 100% by Purchaser, and Supplier hereby agrees to assign any and all rights, title, and interest in and to any and all Attributes, Efficiency Credits, and/or Emission Reduction Credits to Purchaser to the extent necessary to accomplish the foregoing result. To the extent Supplier is prohibited for any reason from assigning its rights, title, and interest in and to any such Attributes, Efficiency Credits, and/or Emission Reduction Credits to Purchaser, Supplier shall pay to Purchaser an amount equal to the value of such non-transferable Attributes, Efficiency Credits, and/or Emission Reduction Credits (based on the value of the benefit Supplier receives there-from) as promptly as practicable following receipt of such benefit.

(b) For purposes of this Environmental Credits Section, the following terms have the following definitions.

- (i) “Attributes” shall mean all Emission Reduction Credits, Efficiency Credits, and any other credit, right, benefit, attribute, offset, reduction, allowance, or indicia arising out of or relating to the provision of the Services and/or Materials.
- (ii) “Efficiency Credit” shall mean any instrument, certificate, “white tag”, program (including without limitation under any renewable portfolio, energy efficiency, natural gas efficiency or similar program), credit, benefit, attribute, offset, reduction, right (including registration, trading and recording rights), allowances, or indicia, however entitled, now existing or hereafter arising, for or relating to or arising out of a reduction in energy, natural gas, or fuel consumption, a shifting of energy or natural gas consumption from higher consumption periods to periods of lower consumption, or an increase in output or performance for any given level of energy, natural gas, or fuel usage, including without limitation any of the following: (A) the provision of demand-side technologies, hardware, software, controls, or services designed to conserve or curtail electricity or natural gas, or to manage electricity load or reduce the need for additional or existing generation, production, transmission, or distribution capacity, which includes demand-side management solutions, peak-shaving or peak-shifting measures, and conservation and load management technologies and measures of whatsoever nature; (B) offering time-of-use rates that include mandatory peak, shoulder, and off-peak time-of-use rates; (C) offering interruptible or load response rates; (D) implementing programs focused on load curtailment, peak reduction, demand response systems, and retrofit conservation, (E) the measures described in the Work, and (F) installation or operation of customer-side generation resources, customer-side renewable energy generation, combined heat and power, or other efficient generation resources.
- (iii) “Emission Reduction Credits” shall mean any and all credits, attributes, benefits, offsets, reductions, rights (including registration, trading and recording rights), allowances, or indicia, however entitled, for or relating to the reduction, mitigation, or control of greenhouse gas.

9. Nuclear Devices

(a) Purchaser’s Premises may have nuclear devices (“Devices”), including but not limited to density meters, present. Supplier shall not enter any radioactive posted area without the prior coordination of Purchaser’s Environmental Compliance Coordinator or designee. Supplier shall not perform work on any Devices unless licensed to do so and authorized by Purchaser’s Environmental Compliance Coordinator or designee. Supplier shall follow Purchaser’s guidance when required to dispose of tritium-containing signage.

(b) Before bringing any Devices onto Purchaser's Premises, Supplier shall notify Purchaser and provide Purchaser with the name of Supplier's personnel responsible for the safety of the Devices. Supplier shall store and use such Devices in accordance with applicable law.

10. Protection of Water Resources

Supplier shall perform the Work in a manner to prevent the unauthorized release of pollutants to surface water and groundwater. In the event that Supplier generates any wastewater in the performance of the Work or performs maintenance or cleaning of any equipment or vehicles while on Purchaser's Premises the following provisions shall apply.

(a) All Supplier wastewaters must go to an approved permitted location or approved collection unit and shall not be directed into storm drains, storm water systems, surface waters, or waste water treatment systems unless approved by Purchaser's Environmental Compliance Coordinator or designee. Wastewaters include, but are not limited to, cement and/or concrete washes.

(b) At Purchaser's direction and oversight, Supplier shall be responsible for performing any required groundwater monitoring and/or characterization associated with the Work.

(c) Supplier shall wash all trucks and other equipment only in Purchaser's Premises authorized areas and shall not allow uncontrolled runoff of wash water to enter receiving streams or the accumulation of mud and sediment on roadways and other paved areas.

11. Stormwater Management/Erosion and Sediment Control

(a) Compliance Program. Where required in connection with the Work by law or in Purchaser's sole discretion, Supplier shall develop and implement a stormwater management and erosion and sediment control program that complies with all applicable Environmental Laws, Environmental Permits, and associated plans, and conforms with any additional Purchaser site-specific requirements. At Purchaser's request, Supplier shall provide Purchaser documentation demonstrating how its stormwater management and erosion and sediment control program will achieve compliance with the requirements of this Stormwater Management/Erosion and Sediment Control Section.

(b) Compliance Assurance. Supplier's stormwater management and erosion and sediment control program shall include process-based elements for assuring compliance with all applicable Environmental Laws, Environmental Permits, and associated plans. Such process elements shall include mechanisms for tracking Supplier's compliance tasks and periodic auditing of Supplier's compliance.

(c) Certification. Supplier Personnel responsible for implementing Supplier's stormwater management and erosion and sediment control program shall be certified/licensed to perform their respective stormwater compliance tasks in the state(s) where the Work is performed. If a state(s) does not have a certification program, Supplier Personnel shall be otherwise qualified to perform such tasks. All stormwater certifications and qualifications shall be maintained throughout the duration of the Work. Prior to commencement of the work, Supplier shall provide Purchaser's Environmental Compliance Coordinator or designee (as identified in the Purchase Order) with evidence of all Supplier Personnel certifications and qualifications.

(d) Coordination with Purchaser. Supplier shall provide Purchaser's Environmental Compliance Coordinator or designee with all stormwater management and erosion and sediment control compliance records on a frequency determined by Purchaser (as identified in the Purchase Order) or at Purchaser's

request. Supplier shall coordinate with Purchaser as requested to address deficiencies identified in Supplier's stormwater management and erosion and sediment control program.

(e) Template forms. Unless agreed to in writing by Purchaser, Supplier shall use Purchaser-provided standard template forms for developing stormwater pollution prevention plans ("SWPPP") and conducting stormwater inspections.

12. Potable Water Use

Supplier shall not install any potable water system utilizing a groundwater well or surface water as a source for potable water or ice without Purchaser's express prior written consent. If Supplier installs or uses such a potable water source or system, Supplier shall be solely responsible for complying with all applicable Environmental Laws, Environmental Permits, other federal, state, and local requirements, and applicable industry standard protocols, including, but not limited to, periodic sampling (including preliminary samples), treatment, reporting, and recordkeeping. Supplier shall promptly provide Purchaser with copies of all reports, sampling results, and other records related to installation and use of any such potable water system upon completion or otherwise upon request.

13. Temporary Oil Storage on Purchaser's Premises

(a) If Supplier will have present on Purchaser's Premises any aboveground oil storage tanks required temporarily for the Work, Supplier shall register such tanks with all appropriate state and local agencies and pay any associated fees. Unless otherwise provided in these Supplemental Terms and Conditions or directed by Purchaser's authorized representative, any aboveground or underground storage tanks to be installed by Supplier for Purchaser's use shall be registered by Purchaser and associated fees shall be paid by Purchaser.

(b) If Supplier anticipates placing or having present on Purchaser's Premises greater than 1,320 gallons of petroleum product stored in tanks or containers equal to or greater than 55 gallons, Supplier must prepare, implement, and maintain a Spill Prevention Control and Countermeasure ("SPCC") plan(s) specific to the Work that complies with federal SPCC regulations. This SPCC plan(s) shall be provided to Purchaser's Environmental Compliance Coordinator or designee for review and written approval prior to commencing the Work. Where required by state law, SPCC Professional Engineer ("PE") certification must be completed by a PE of the state where the facility is located.

(c) Purchaser shall develop and maintain any other federal or state specific plans and permits required in connection with any oil storage, including but not limited to Facility Response Plans, Virginia Oil Discharge Contingency Plans, West Virginia Groundwater Protection Plans, Maryland Oil Operations Permit and Pennsylvania Preparedness Prevention and Contingency Plans.

(d) All non-double walled oil storage tanks and containers subject to SPCC must be provided with secondary containment having adequate volume for 100% of the largest single container plus, where secondary containment is subject to rainfall, the volume of the 25 year, 24 hour storm event. Initial size for new or reconstructed earthen secondary containment dikes must also be designed for additional capacity to allow for eventual settling and erosion of the earthen materials. All secondary containment dikes shall be constructed with a means of removing accumulated rainwater, such as a lockable valved dike drain or a collection sump for pumping water out.

(e) All SPCC oil storage and handling areas shall be secured and have controlled access. Security fencing for SPCC purposes must be chain link fence, at least 6 feet tall.

(f) All Supplier SPCC Plans must include a statement verifying that containment areas subject to rainfall provide capacity for the entire contents of the tank plus sufficient freeboard to allow for precipitation from a significant rain event (25 year, 24 hour storm). Field measurements and volume calculations must be included in all Supplier SPCC Plans.

14. Spills and Spill Prevention

(a) The storage of all Non-Hazardous Waste, Hazardous Waste, petroleum or chemicals must be done in a manner to prevent leaking or surface run-off onto all surfaces and sub-surface natural water resources. Unless otherwise directed by Purchaser, secondary containment measures or equipment shall be provided for all containers 55 gallons or larger.

(b) Supplier shall furnish and maintain on Purchaser's Premises an adequate supply of spill containment and clean-up absorbent materials, as well as personal protective equipment ("PPE") and other spill response equipment.

(c) Any Non-Hazardous Waste, Hazardous Waste, chemical or petroleum spill on Purchaser's Premises or to a waterway by Supplier of any amount shall be reported immediately to Purchaser's Environmental Compliance Coordinator or designee. Supplier shall be responsible for cleanup of the spill area to pre-spill conditions as approved by Purchaser's Environmental Compliance Coordinator or designee.

(d) Supplier vehicles and mobile and portable equipment that are leaking Non-Hazardous Waste, Hazardous Waste, or chemical or petroleum products shall not be permitted on Purchaser's Premises. Leaks from such vehicles or equipment while on Purchaser's Premises shall be cleaned up in accordance with this Spills and Spill Prevention Section. Supplier must provide the means of collecting leakage from vehicles, mobile and portable equipment such as drip pans, tubs, or pails (each a "Collection Container"). Absorbents (i.e., clay, pads or spill booms) shall only be used when the use of a Collection Container is impractical.

(e) Supplier shall be responsible for all Non-Hazardous Waste and Hazardous Waste disposal costs that result directly from any clean-up activities associated with a spill or release of a Non-Hazardous Waste, Hazardous Waste, or chemical or petroleum product for which Supplier has been identified as the responsible party for the spill.

(f) Supplier shall comply with Purchaser's spill response procedures in the event Supplier observes or causes a spill or release of any quantity of Non-Hazardous Waste, Hazardous Waste, or chemical or petroleum product while on Purchaser's Premises. At the request of Purchaser, Supplier shall use the services of Purchaser's retained spill response contractor whenever the scope of the clean-up, at Purchaser's sole determination, (i) exceeds the on-site capabilities of Supplier or (ii) the clean-up activities will cause a significant impact on the Work's schedule or Purchaser's Premises operations.

15. Protection of Plants and Wildlife

(a) Supplier shall perform the Work in accordance with industry best practices and standards pertaining to the protection of plants and wildlife and their natural habitats. Supplier shall consult with Purchaser's Environmental Compliance Coordinator or designee if the Work has the potential to impact any threatened or endangered species, whether plants or wildlife, in order to determine the environmentally responsible approach for proceeding with the performance of the Work. Supplier shall promptly report any injury or death of wildlife, damage to wildlife habitat, or damage to threatened or endangered plants caused by the performance of the Work to Purchaser's Environmental Compliance Coordinator or designee.

- (b) Supplier shall adhere to all habitat area restrictions, permits and authorizations.

16. Air, Noise, Vehicle Idling

(a) Supplier shall take measures to minimize fugitive dust emissions and other conditions of air pollution associated with the operation of Supplier's equipment. Purchaser reserves the right to curtail the Work in the event fugitive dust emissions and other conditions are causing a condition of air pollution.

(b) Supplier shall take measures to prevent excessive or nuisance noise conditions or air pollution associated with the operation of Supplier's equipment. Purchaser reserves the right to curtail the Work in the event Supplier causes excessive or nuisance noise conditions or air pollution.

- (c) Supplier shall adhere to state, local, and Purchaser Premises restrictions for vehicle idling.

17. Pesticide and Herbicide Use

Where applicable, Purchaser may request verification of Supplier's applicator's license or similar document as required by state or local requirements prior to Supplier application of pesticides or herbicides on Purchaser's Premises.

18. Training

Supplier's personnel on Purchaser's Premises shall have completed all applicable training requirements as specified in applicable Environmental Laws and Environmental Permits. Supplier shall maintain training records as required by any applicable Environmental Laws and Environmental Permits, and shall provide copies of them to Purchaser if requested.

19. Wetlands

For Work performed in or near wetlands or streams, Supplier will comply with applicable Environmental Laws and Environmental Permits. Prior to Supplier performing the Work in or near wetlands or streams that were not previously identified; Supplier shall notify and acquire written approval from Purchaser's Environmental Compliance Coordinator or designee prior to any wetland or stream related activity and clearances.

20. Fill Material, Excess Gravel, Excess Clean Fill

If Supplier's Work under this Agreement involves the provision and/or use of any fill material, including but not limited to structural or flowable fill, Supplier shall obtain Purchaser's prior written consent on the contents of the fill. The use of ash in fill, concrete, construction materials or construction activities is prohibited unless specifically approved by Purchaser's Environmental Compliance Coordinator or designee. Except as otherwise directed by Purchaser, Supplier shall only place excess gravel or excess clean fill in an area or container unit designated by Purchaser.

21. Excavation, Digging

Prior to the commencement of any Supplier excavation activities including, but not limited to, drilling, boring, trenching, digging, grading or groundwater well installation, Supplier shall (a) utilize the applicable "Call Before You Dig System" or similar program intended to identify underground utilities and (b) obtain prior written approval from Purchaser's Environmental Compliance Coordinator or designee. If any contamination, human remains or cultural artifacts are discovered during any Supplier

excavation, Supplier shall immediately cease excavation and notify Purchaser's Environmental Compliance Coordinator or designee, construction project supervisor, or designee.

22. Wood, Wood Chips, Mulch, Leaves

- (a) Supplier shall comply with any hardwood restrictions or quarantines.
- (b) Wood chip or mulch piles created in the course of the Work shall only be moved or dispersed to a location approved by Purchaser's Environmental Compliance Coordinator or designee.
- (c) Under no circumstances shall Supplier openly burn wood, wood chips, mulch, or leaves created in the course of the Work without the express written consent of Purchaser's Environmental Compliance Coordinator or designee, and Supplier must obtain any applicable Environmental Permits or other permits associated therewith.

23. Sustainability, Green Design

- (a) Supplier shall incorporate environmentally sustainable practices into the design, construction, and operation of the Work wherever practicable. If requested by Purchaser, Supplier shall submit to Purchaser a list of options, recommendations, approaches, and costs addressing the following criteria: sustainable project site development; water use; pollution control; material selection, material reuse and recycling; energy efficiency; non-hazardous waste and/or hazardous waste avoidance and minimization; indoor air quality; and other innovative applications of low impact development practices.
- (b) Where Purchaser desires to evaluate the utilization of a "green building" certification program, Supplier shall consider programs such as the U.S. Green Building Council's Leadership in Energy and Environmental Design ("LEED"), GreenGlobes, and application of EPA's Energy Star or other comparable program.

**Attachment 1 – Review of Supplemental Terms and Conditions On-Site Services,
Power Generation*****

Certification of Compliance

The following certification must be signed and returned to Purchaser in accordance with, Section 3 - Safety Orientation/Safety Review, Subpart D of Part Two of the Supplemental Terms and Conditions - On-Site Services, Power Generation.

Supplier hereby certifies that all of Supplier's Personnel named below have reviewed the Supplemental Terms and Conditions - On-Site Services, Power Generation.

Printed Name	Last four digits of SS#	Date Completed
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Supplier: _____

By: _____
(Signature)

Printed Name: _____

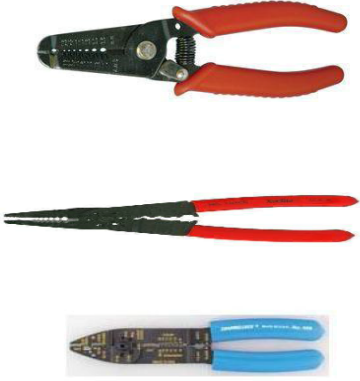
Title: _____


Date: _____


Attachment 2 - Proper Tool Charts

HAND SAFETY

TOOL RECOMMENDATION LIST for INSULATION /JACKET REMOVAL OF CONDUCTORS

JOB	TOOL RECOMMENDATION	
<p>Single conductor – solid - #8 and smaller</p> <p>-Multiuse tool, typically includes insulation stripper, bolt cutter, crimper and wire cutter</p> <p>-Not preferred for stranded conductors</p>	<p>THOMAS & BETTS - WT-2000 - Wire Stripper Tool</p> <p>Xcelite 104CGV 10 Gauge to 22 Wire Stripper and Crimper</p> <p>Channelock CL959G 8.5" Crimper/Wire Stripper</p>	
<p>Caution</p> <p>Watch hand placement when using to cut, strip or crimp</p> <p>Pinch points exist not only between jaws but also between the handles</p> <p>If being used for cutting wire or bolts, the excess piece may be thrown and become an eye hazard</p>		

<p>Single conductor – solid or stranded - #8 and smaller</p>	<p>Ideal 45-292 Stripmaster</p> <p>GB SE-92 STRIP-EASY 8" Auto Wire Stripper</p> <p>Greenlee 1935 Terminators Automatic Wire Stripper</p>	
<p>Caution</p> <p>Watch hand placement</p> <p>Pinch points exist between the handles, the wire holding jaws, and the cutting jaws</p> <p>Jaws spring and return to original position when releasing handles creating a pinch point hazard</p> <p>The jaw set that strips the wire has sharp edges</p> <p>Be sure to select the appropriate groove for stripping to prevent binding of the tool or damaging of the conductor</p>		


<p>Single conductor - #8 and larger or multi conductor outer jacket removal</p> <p>-The outer jacket must be round, does not work well with odd shaped cable</p>	<p>Knipex 16 30 135 SB Cable Stripper</p> <p>Ideal 45-128 Swivel Blade Cable Stripper</p> <p>Paladin Tools 1820 AM 25 Round Cable Slitter</p>	
---	---	--

Caution

Cutting blade is sharp

Blade condition should be checked before use (not bent, broken, etc.)

Some models have sharp corners or edges

<p>Single conductor #2, 1/0, 2/0, 4/0 with hard insulation</p> <p>-Does not work with softer insulation types (ex. SO cord)</p>	<p>Ripley 4X4 plus cable end stripper (Ripley offers several other similar tools)</p>	
--	---	---

Caution

Cutting blade is sharp

If insulation becomes lodged in the tools, remove with another tool, **NOT your fingers**

Be sure blade depth is set correctly to prevent binding of the insulation

Caution

Extremely sharp cutting edges

Watch placement of non-cutting hand

Cut away from the body

DO NOT put any body part in the cutting path of the knife

Cut resistant gloves **MUST** be worn

Cut resistant sleeves may be necessary

Check blade condition before use, sharpen or replace any dull blades

Attachment 3 – Energized Electrical Work Permit (Example)



Energized Electrical Work Permit *

PART I: TO BE COMPLETED BY THE REQUESTER

Work Order #

1) Description of circuit/equipment/job location:	
2) Description of work to be done:	
3) Justification of why the circuit/equipment <u>cannot</u> be de-energized or the work deferred until the next scheduled outage:	
4) Consequences of unexpected fault or loss of power while energized work is in progress:	
Name of Requestor:	Date:

PART II: TO BE COMPLETED BY THE ELECTRICALLY QUALIFIED PERSON(S) DOING THE WORK

Caution: The energy source needs to be labeled with arc flash information or an engineering analysis has been completed in order to proceed!

Voltage:	Minimum Approach Distance:
Arc Flash Rating (cal/cm ²):	Flash Boundary Distance:
Means to restrict access of unqualified persons from work area: <input type="checkbox"/> Signs/Barricade <input type="checkbox"/> Area Monitor	
Is there a "One-line" diagram available for review?	<input type="checkbox"/> Yes (attach) <input type="checkbox"/> No
Completion of a Job Briefing including discussion of any job-related hazards:	<input type="checkbox"/> Yes (attach) <input type="checkbox"/> No
Can this described work be done safely? If no, return to Requester	<input type="checkbox"/> Yes <input type="checkbox"/> No
Personal Protective and Supplemental Equipment to be used	
Rating of Arc Flash Clothing { } cal/cm ²	Insulated Tools <input type="checkbox"/> Lighting(non-conductive) <input type="checkbox"/>
Rating of Insulated Gloves-Class { }	Test Equipment <input type="checkbox"/> Portable GFCI <input type="checkbox"/>
Rating of Insulated Mats { } volts	Fuse Puller(non-conductive) <input type="checkbox"/> Peer Check <input type="checkbox"/>
Rating of Insulated blankets { } volts	Rope (non-conductive) <input type="checkbox"/> Other: Specify
Name of Electrically Qualified Worker(s) involved : 1. 2.	
3.	4. 5.

Part III: GENERAL SECTION FOR ADDITIONAL CONCERNS OR GUIDANCE

--

Part IV: APPROVAL TO PERFORM THE WORK WHILE ELECTRICALLY ENERGIZED FOR VOLTAGES GREATER THAN 120 VOLTS

Manager of O&M or their designee(Print name):	Date:
Provide signature or method of acceptance:	<input type="checkbox"/> Verbal <input type="checkbox"/> Email
Date Permit was Closed:	This Permit has to be kept for one calendar year

* Exemptions from Permit: Testing, Troubleshooting, and/or Voltage Measurement/Detection

Form No. 741822 (January 2018)
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Attachment 4a – Pre Job Briefing Form (Example)



Pre-Job Brief/PPE Hazard Assessment - Power Generation

Instructions:

1. Use this form to conduct: General Pre-Job Briefings/Detailed Pre-Job Briefings/Mid Shift Briefings/Post Job Briefings.
2. Ensure that materials needed to conduct the briefing are available and that all primary and support personnel are present.
3. Retain for 30 days.

Task to be Performed		Date (MM/DD/YYYY)
Work Order	PM#	Functional Location
Personnel Assigned to the Task (Use the space at the end of the form for additional names)		
1)	2)	3)
4)	5)	6)
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>1) Identify/Discuss "Error Precursors" having possible impact on task. (An unfavorable condition that increases the probability for error during a specific action.)</p> </div> <div style="width: 48%;"> <p>2a) What are the hazards involved in this task?</p> <p>2b) Has there been any previous injuries or near-misses associated with this Task?</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 48%;"> <p>3a) What could go wrong?</p> <p>3b) What is the worst case scenario that might occur?</p> </div> <div style="width: 48%;"> <p>4) Identify/Discuss the "Defenses" that will be used. (Pre-Job Brief, 3way Communication, Peer Check - 200% Safe, Job-Site Review)</p> </div> </div>		
General Briefing Completed By:		
Signed By:		Date:

Stop the task at a safe point and notify your supervisor: 1) If you or any team members are unsure about the expected outcome of the task. 2) A workaround is required to complete the task. 3) Unexpected equipment conditions are discovered. 4) If you or any team members are injured or involved in a near-miss.



Detailed Pre-Job Checklist - Note: If the task involves any of the following items a Detailed Pre-Job Briefing must be conducted. Check and discuss all that apply:

Discussion Items (Detailed Briefing)
<input type="checkbox"/> All team members have not performed the task in the past 12 months
<input type="checkbox"/> Requires LOTO (for minor maintenance LOTO, refer to the station's one page LOTO clarification)
<input type="checkbox"/> Requires the use of a permit (Confined Space Entry Permit/Drilling - Digging & Cutting Permit/Energized Work Permit/Rigging Permit/Welding & Cutting Permit/Diving Permit)
<input type="checkbox"/> Involves multiple crafts or contractor/vendor support
<input type="checkbox"/> Use of a Procedure including an Infrequent Operating Procedure (IOP)
<input type="checkbox"/> Potential contact with energized circuits/equipment or working within the Minimum Approach Distance
<input type="checkbox"/> Potential exposure to asbestos, leads, inorganic arsenic, or hex chrome
<input type="checkbox"/> Specialized PPE required: Arc Flash Clothing, Chemical Apron/Suit, Face Shield, Fall Protection, Floatation Device, Specialty Gloves (Cuts/Rodding), Respiratory Protection, Rubber Goods
<input type="checkbox"/> Potential impact to unit operation
<input type="checkbox"/> Adverse ambient conditions (extreme hot or cold conditions)
<input type="checkbox"/> Non-routine Walking/Working Surface Access or Elevated Stack Work
<input type="checkbox"/> Working with chemicals or working on chemical systems (SDS review)
<input type="checkbox"/> Potential to cause an unpermitted discharge to the environment (ground/air/water)

What steps or controls will be implemented to address each item identified:

Comments: _____

Miscellaneous Items:

Detailed Briefing completed by: _____ Date: ____/____/____

Form No. 720691 (May 2017)

Pre-Job Brief/PPE Hazard Assessment-Power Generation

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Mid - Shift Briefing (Discussion should be a review of previous topics, list any changes or updates)	
Mid-Shift Briefing Completed By:	
Signed By:	Date:
Post Job Briefing Discussion (Identify and list any Best Practices, Lessons Learned, Near misses or safety incidents or injuries involved with this task)	
Post Job Briefing Completed By:	
Signed By:	Date:

Additional names:

Attachment 4b – Job Safety Analysis Form (Example)

Job Safety Briefing

Description of Work:		Work Area:	Date:	Supv./Lead:	Emergency Contact Number:
Craft:	Duration of Task:	Site/Area Conditions:	Weather Conditions:		
Steps To Complete Task		Potential Hazards	Steps To Prevent Hazards/Injury/Incident		

Crewmembers sign before starting work acknowledging your agreement with this plan/Initial after lunch that this plan is still in place

1	/
2	/
3	/
4	/

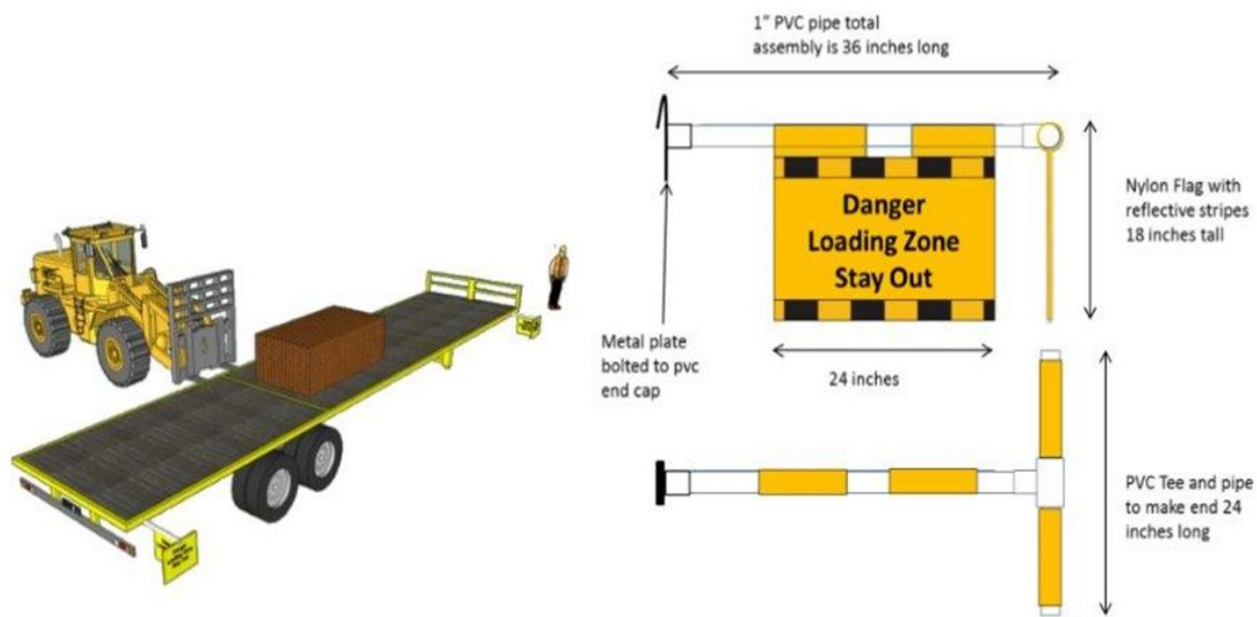
6	/
7	/
8	/
9	/

Coached By:

/
Foreman
/
General Foreman
/
Superintendent
/

SAFETY CHECKLIST: Mark each blank with a "Y" (Yes), "N" (No), or "NA" (Not Applicable)					
PPE	Hazard Communication	Energized Work	Confined Space	Additional Hazards/Concerns	
<input type="checkbox"/> Eye Protection (foam lined)	<input type="checkbox"/> SDS Reviewed	<input type="checkbox"/> Energized Work Permit	<input type="checkbox"/> Permit required	<input type="checkbox"/> Heat Stress	
<input type="checkbox"/> Hearing Protection	<input type="checkbox"/> Employees Trained	<input type="checkbox"/> Corporate Approval	<input type="checkbox"/> Employees trained	<input type="checkbox"/> Cold stress	
<input type="checkbox"/> Head Protection	<input type="checkbox"/> Materials/Containers Labeled	<input type="checkbox"/> Employees properly trained (incl. CPR)	<input type="checkbox"/> Permit & log posted	<input type="checkbox"/> Extreme Housekeeping	
<input type="checkbox"/> Gloves (Correct Type)	<input type="checkbox"/> Proper PPE Provided		<input type="checkbox"/> Rescue equipment	<input type="checkbox"/> Slips, trips, and falls abated	
<input type="checkbox"/> Respiratory Protection			<input type="checkbox"/> Communication	<input type="checkbox"/> Pinch points	
<input type="checkbox"/> Foot Protection	Welding/Burning/Hot Work	Scaffold Use	<input type="checkbox"/> Secure access	<input type="checkbox"/> Overhead work	
<input type="checkbox"/> Protective Clothing	<input type="checkbox"/> Hot Work Permit	<input type="checkbox"/> Current inspection & tag	<input type="checkbox"/> Monitoring	<input type="checkbox"/> Airborne contaminants	
<input type="checkbox"/> Other:	<input type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Access provided	<input type="checkbox"/> Ventilation	<input type="checkbox"/> Manual lifting (sprains/strains)	
Fall Protection	<input type="checkbox"/> Flammable/Combustible	<input type="checkbox"/> Employees trained	<input type="checkbox"/> Signs posted	<input type="checkbox"/> Thermal burns	
<input type="checkbox"/> Body Harness & Retractable	<input type="checkbox"/> Material Removed	<input type="checkbox"/> Fall protection and prevention plan in place		<input type="checkbox"/> Sharp edges	
<input type="checkbox"/> Anchor Point Selected	<input type="checkbox"/> Fire Watch		Excavation	<input type="checkbox"/> Open holes	
<input type="checkbox"/> Retractable	<input type="checkbox"/> Hoses/Leads in good condition	Mobile Equipment	<input type="checkbox"/> Permit required	<input type="checkbox"/> Moving equipment (rotating)	
<input type="checkbox"/> Equipment Inspected	<input type="checkbox"/> Welding screens	<input type="checkbox"/> Operators trained	<input type="checkbox"/> Daily inspection	<input type="checkbox"/> Vibration & repetitive motion	
<input type="checkbox"/> Anchor Point Selected	<input type="checkbox"/> Spark containment	<input type="checkbox"/> Equipment inspected	<input type="checkbox"/> Shored/sloped		
<input type="checkbox"/> Retrieval Plan	<input type="checkbox"/> Flash arrestor in place	<input type="checkbox"/> Rigging inspected	<input type="checkbox"/> Access/egress	Environmental Concerns	
Permits	Power Tools	<input type="checkbox"/> Spotter needed	<input type="checkbox"/> No standing water	<input type="checkbox"/> Erosion Control	
<input type="checkbox"/> Drilling, Digging and Cutting Permits	<input type="checkbox"/> Tools inspected & CC'd	<input type="checkbox"/> Work area/swing radius barricaded	<input type="checkbox"/> Barricade in place	<input type="checkbox"/> Waste Management	
<input type="checkbox"/> Energized Work Permit	<input type="checkbox"/> GFCI	<input type="checkbox"/> Tag line	<input type="checkbox"/> Fall protection	<input type="checkbox"/> Spill Control & Report	
<input type="checkbox"/> Hot Work Permit	<input type="checkbox"/> Guards in place	Lockout/Tagout	Ladder Use		
<input type="checkbox"/> Rigging Permit	<input type="checkbox"/> Hoses pinned & whip checks in place	<input type="checkbox"/> Permit required	<input type="checkbox"/> Ladder inspected		
<input type="checkbox"/> Confine Space Permit	<input type="checkbox"/> PPE identified	<input type="checkbox"/> Employees trained	<input type="checkbox"/> Ladder secured		
Falling Object Protection	<input type="checkbox"/> Employees trained in proper use	<input type="checkbox"/> Locks/tags in place	<input type="checkbox"/> Extends 3' over landing		
<input type="checkbox"/> Floor/deck covered and secure		<input type="checkbox"/> Equipment de-energized	<input type="checkbox"/> 4:1 pitch		
<input type="checkbox"/> Sides/guardrails secure			<input type="checkbox"/> Solid footing		
<input type="checkbox"/> Tool lanyards in place/tools secure			<input type="checkbox"/> Access clear		
<input type="checkbox"/> Barricades in place as required					
COACHING GUIDE			CLOSE OUT		
Is the crew able to answer the following questions in a manner that shows they understand the task and potential hazards and have implemented the appropriate controls?			Each employee is required to sign off of JSA at the end of the shift or task and document any incidents or concerns.		
Questions	Yes	No	Signature	Did you have an injury/incident/near miss?	Did you report?
				Yes	No
Can the crew describe the task?	<input type="checkbox"/>	<input type="checkbox"/>	1 _____	<input type="checkbox"/>	<input type="checkbox"/>
Did the crew identify specific hazards for the task?	<input type="checkbox"/>	<input type="checkbox"/>	2 _____	<input type="checkbox"/>	<input type="checkbox"/>
Did the crew identify hazards from other work/crews in the immediate area?	<input type="checkbox"/>	<input type="checkbox"/>	3 _____	<input type="checkbox"/>	<input type="checkbox"/>
Has the crew identified specific controls to eliminate the hazards?	<input type="checkbox"/>	<input type="checkbox"/>	4 _____	<input type="checkbox"/>	<input type="checkbox"/>
Do crew members have an understanding of project stop work authority?	<input type="checkbox"/>	<input type="checkbox"/>	5 _____	<input type="checkbox"/>	<input type="checkbox"/>
Does the crew understand that the JSA should be updated if task or conditions change?	<input type="checkbox"/>	<input type="checkbox"/>	6 _____	<input type="checkbox"/>	<input type="checkbox"/>
What was good?	<input type="checkbox"/>	<input type="checkbox"/>	7 _____	<input type="checkbox"/>	<input type="checkbox"/>
What are the opportunities for improvement?	<input type="checkbox"/>	<input type="checkbox"/>	8 _____	<input type="checkbox"/>	<input type="checkbox"/>
Are there any additional at-risk issues?	<input type="checkbox"/>	<input type="checkbox"/>	9 _____	<input type="checkbox"/>	<input type="checkbox"/>
			10 _____	<input type="checkbox"/>	<input type="checkbox"/>
					Supervisor Acknowledgement

Attachment 5 – Unloading Zone Guidance Illustration



**Warning Flags are available by calling:
Sandy's Signs
(360) 693-9229**

Attachment 6 – Angle Grinder Permit

Cutting Disk Approval Form

Date: _____

Time: _____AM/PM

What will be cut using the cutting disc? _____

Is there any other way to cut materials other than using a cutting disc?
(e.g., torch, plasma arc, etc.) Yes/No (circle one)

If NO, then state the reason why: _____

What hazards have been noted and mitigated associated with this task? _____

Prior to signing on this form, both the superintendent and foreman must do the following:

- Review the responses and ensure that a cutting disk is the appropriate method of cutting
- Ensure a Job Hazard Analysis has been developed for the task and reviewed by the superintendent
- Review and sign the Job Hazard Analysis

This form must be kept at the Project Site with the Job Hazard Analysis at the operation of the entire duration of the Work being performed. A new form must be filled out for tasks not identified on this form.

Employee Signature: _____

Foreman Signature: _____

Superintendent Signature: _____

Attachment 7 - Incident Classification Quick Reference Guide/Process

Incident Type	Definition
Near Miss	<ul style="list-style-type: none"> A work-related incident that <u>could have</u> but <u>did not</u> cause injury or property damage if circumstances had been different. These are incidents where: <ul style="list-style-type: none"> All protective barriers failed (particularly the last one), Luck prevented injury, and The potential for serious injury existed.
First Aid/ Minor Injury	Consultation is sought or care is rendered to an individual by a trained first aid provider, certified Emergency Medical Technician (EMT)/Paramedic, Nurse, Physician's Assistant or any other Licensed Health Care Professional. Examples of First Aid/Minor Injury cases would include (but are not limited to): Heat Illness/Heat Stress, Insect bites/stings, cuts and abrasions, bruises, ankle twists, sprains/strains, debris in the eye. <i>If the affected employee is sent to a doctor or outside medical facility for care, the incident classification will at least be a Non-Recordable (see below).</i>
OSHA Recordable Injury/ Illness	The classification assigned to a work-related injury or illness incident which resulted in medical treatment beyond first aid (e.g., application of sutures, administration of prescription medication, admission to a hospital for treatment other than observation) but did not result in any lost time or restricted activity other than the day of the incident. Physician's care does not automatically make a case recordable. If the physician's care is first aid in nature and not considered treatment, the case is not recordable.
Restricted Work Day Case	The classification assigned to a work-related injury or illness incident which results in the affected employee not being able to perform 100% of employee's routine job functions that would normally be expected in a typical work week, other than on the day of the injury or on-set of an illness. Cases can be considered restricted day cases regardless of who instructs the employee to perform restricted duties.
Lost Work Day Case	The classification assigned to a work-related injury or illness incident which results in the injured employee missing one or more complete shifts of work, other than on the day of the injury or the on-set of an illness. Cases can be considered lost workday regardless of who instructs the employee to stay out of work.
Life-Altering Injury (LAI)	<p>The most serious work-related injuries (excluding fatalities). These are serious injuries that result in permanent or significant temporary damage to body function or internal organs where either the company or the worker could have taken action that would have prevented the incident from occurring. Examples include:</p> <ul style="list-style-type: none"> Amputation that includes bone Eye injuries that involve permanent loss of vision 3rd degree burns greater than 9% of the body Multiple fractures that result in permanent disability Trauma to a vital organ resulting in permanent damage Significant head injury resulting in permanent brain damage Spinal cord injury resulting in permanent disability <p><u>Note:</u> This list isn't all inclusive. Other significant injuries may be included.</p>

Serious Injury or Fatality (SIF)	<p>Work-related injury that results in one of these outcomes:</p> <ol style="list-style-type: none"> 1. Fatalities 2. Amputations (involving bone) 3. Concussions and/or cerebral hemorrhages 4. Injury or trauma to internal organs 5. Bone fractures excluding fingers and toes, unless they are compound, open or crushing bone fractures for fingers and toes. Hairline fractures to the face, skull or navicular wrist bone (base of thumb) are SIF. All other hairline fractures are not SIF. 6. Tendon and ligament tears. Must be complete. Partial tears are not SIF. 7. Herniated disks (neck or back) 8. Lacerations resulting in severed tendons and/or a deep wound requiring internal stitches 9. 2nd (10% body surface) or 3rd degree burns 10. Eye injuries resulting in eye damage or permanent loss or significant change of vision 11. Injections of foreign materials (e.g. hydraulic fluid) 12. Severe heat exhaustion and all heat stroke cases (severe heat exhaustion cases are those where all of the following symptoms are present: profuse sweating, nausea, and confusion). If confirmed fainting occurs due to the heat exposure, this is an automatic severe case. Fainting where personal medical condition and/or medicine significantly contributed to the heat exhaustion are not SIF. 13. Dislocation of a major joint (hip, shoulder, elbow, etc.) <p>The following are excluded even if they are OSHA-recordable: non-preventable vehicle accidents; medical conditions such as heart attacks and seizures; injuries from normal body movements; chipped/broken teeth; hernias, nasal cartilage fractures, corneal abrasions.</p>
Potential Serious Injury or Fatality (PSIF)	An incident or injury that occurs that had the potential to result in a serious injury or even a fatality, had the situation been different. PSIFs can result from near miss, first aid or OSHA Recordable incidents.
Non-Recordable Injury	<p>The classification assigned to a work-related injury or illness incident which resulted in first aid treatment being administered by a licensed healthcare professional.</p> <p>Note: There is no such classification as a "doctor first aid case". These cases are typically Non-Recordable injuries and need to be classified accordingly.</p>
For Record Only (FRO)	<p>The classification assigned to cases <i>where a work relationship cannot be established</i>. Typically, these are cases where the work relationship was questionable or further investigation determined the case was non-work-related. Rather than delete these cases from our files, code them as For Record Only classification in case they need to be referred to later. This is an electronic method of "lining out" cases from the OSHA Log. Normally, the cases are not deleted from the file.</p> <p>Note: Work-related cases must never be classified FRO. If a worker is injured but no first aid is given, this is still recorded as First Aid and not FRO.</p>

To ensure Supplier incidents are classified consistently, Purchaser's Power Generation Safety will align Supplier's submitted incident record with ***Purchaser's incident determination and interpretation*** of OSHA's 1904 Recordkeeping regulation. This will support a consistent approach to reporting Supplier's safety metrics, aligning incident reporting between Supplier and Purchaser Personnel.

The following defines the process in which incident classification discrepancies will be managed between Purchaser and Supplier:

- Suppliers are responsible for making and defending the incident classifications in their OSHA 300 reporting to OSHA.
- When Purchaser Power Generation Safety determines a discrepancy exists in an incident classification as defined by Supplier, Purchaser Power Generation Safety will notify Supplier in writing including Purchaser's determination of the incident classification based on OSHA's Recordkeeping Standard.

- Purchaser Power Generation Safety will send an email to the Purchaser contact for Supplier requesting the Purchaser contact send this notification of discrepancy to Supplier.
- Purchaser will not change an incident classification without notifying Supplier in writing. Supplier may have confidential insights that Purchaser is not aware.
- If Supplier disagrees with Purchaser's intent to change the incident classification, an "incident review" team will review the case to reach a final determination. Supplier will be provided the opportunity for discussion and resolution.
- The team will consist of a representative of Power Generation leadership and the Power Generation Director and/or Manager supporting the business unit and jurisdiction.
- If additional information from Supplier indicates their incident classification is correct, Purchaser will align appropriately.
- If the final determination will be based on Purchaser's interpretation of OSHA's 1904 Recordkeeping Standard, the need to change Supplier's incident classification will include the review and approval of Purchaser's VP of Power Generation.
- The incident classification will be changed and a note will be included in the Incident Description section stating “The injury classification was determined by Purchaser. Purchaser did not agree with Supplier recordkeeping determination and the event has been recorded as _____.”

If there is clear evidence Supplier is reporting incidents incorrectly with the intent to underreport recordables, such evidence will be elevated to Purchaser’s business unit leadership, Legal and Supply Chain.

Attachment 8 – Supplier Safety Data Sheet



Contractor/Supplier Safety Data Sheet

Instructions: Contractor/Supplier must submit this information for the specific division/business unit that would be working on Dominion Energy property. If you have any questions relating to the following items, please contact Dominion Energy's Supply Chain Management.

Company Name		Date
Company Address		Years in Service
Company Email Address		
1. Does your firm have a written Safety & Health program?		<input type="radio"/> Yes <input type="radio"/> No
2. Primary Safety Contact Name		3. Primary Safety Contact Phone Number
4. Firm's North American Industry Classification System (NAICS) Code(s)		
5. Number of Employees		
6. Average Number of Hours Worked Per Year		
7. Firm's OSHA Incidence Rate for Current + Past Three Years *		
Year	Incidence Rate	Industry Average for your NAICS Code
8. Firm's OSHA DART Rate for Current and Past Three Years **		
Year	DART Incidence Rate	Industry Average For your NAICS Code
9. Three-year History of Workers' Compensation Experience Modification Rate		
Year	Experience Modification Rate	Policy Renewal Date

Form No. 725741 (Aug 2017)
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10. Has your firm had any work-related fatalities during the current + past three years?	<input type="radio"/> Yes <input type="radio"/> No
10a. During the current + past three years has your firm had any federal or state OSHA citations from the following categories:***	
a. Willful	<input type="radio"/> Yes <input type="radio"/> No
b. Repeat	<input type="radio"/> Yes <input type="radio"/> No
c. Serious	<input type="radio"/> Yes <input type="radio"/> No
10b. List by year and provide details of any fatalities, any federal/state Willful, Repeat or Serious OSHA citations noted above, or other federal/state citation (i.e. EPA, DOT, etc.);***	
10c. What is the current status of 10a and 10b above?	
11. Has your firm ever performed work for Dominion Energy or been a contractor for Dominion Energy before? <input type="radio"/> Yes <input type="radio"/> No	
11a. If yes, indicate locations:	
12. Has your firm been required to meet with Dominion Energy's safety department during the current and/or past three years regarding safety performance, safety violations or the above incidence rates? <input type="radio"/> Yes <input type="radio"/> No	
12a. If yes, what was the outcome of the meeting?	

* **OSHA Recordable Incidence Rate:** To compute the rate, multiply the number of recordable cases (from your OSHA 300 logs) by 200,000 and then divide that number by your company's total labor hours.

** **DART:** To compute this rate, multiply the number of lost Work Day + Restrictive Duty cases (from your OSHA logs) times 200,000 and then divide that number by your company's total labor hours.

*** **Attach** a copy of any Federal & State citations your firm has received during current and past three years.

Note: Dominion Energy reserves the right to audit the corporate Safety & Health (ES&H) records and conduct a project ES&H audit prior to awarding all contracts.