

# ***AMERICAN ELECTRIC POWER***

## **AEP SAFETY AND HEALTH SUPPLEMENTAL TERMS AND CONDITIONS**

**12/18/2020 Rev. 01**

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## **1.0 INTRODUCTION**

- 1.1 No aspect of operations is more important than the health and safety of people. Zero Harm is at the heart of everything we do at AEP. It means we believe all occupational illnesses and injuries are preventable because we care that everyone goes home in the same or better condition than when they came to Work.
- 1.2 These safety and health requirements shall be used in conjunction with the applicable AEP General Terms and Conditions for Work performed across the AEP System. These requirements reflect Owner's minimum expectations regarding safety and health practices and may exceed the requirements of federal, state, and local regulatory agencies. By entering into the Contract, Contractor agrees that Contractor shall perform all Work in accordance with these safety and health requirements.
- 1.3 If Contractor in good faith believes that any rule or procedure set forth herein will put Contractor Personnel or others at risk, or conflicts with Occupational Safety and Health Administration (OSHA), Contractor shall immediately notify Owner and shall cooperate with Owner to develop a mutually acceptable alternative procedure.
- 1.4 Contractor's safety performance will be monitored and evaluated during the performance of the Contract by Owner's Representative. If warranted by Contractor's poor safety performance, Owner may require Contractor to develop a safety improvement plan. Contractor shall provide plan within five (5) calendar days of written notification for AEP review and mutual agreement and follow said plan until completion.
- 1.5 AEP Business Units may have additional requirements within their specific Business Unit appendix, which Contractor must comply with during Work for that Business Unit.
- 1.6 In order to comply with Owner's registration requirement to the VERO Data Management System operated by Safety Management Group (SMG), Contractor shall, at no additional cost to Owner, register with VERO, by going to <https://safetymg.com/preregistration> or by contacting SMG at [admin@safetymg.com](mailto:admin@safetymg.com).
- 1.7 Capitalized terms used but not defined in these safety and health requirements shall have the same meaning as in the applicable AEP General Terms and Conditions.

## **2.0 SAFETY & HEALTH PLANNING**

- 2.1 Contractor shall ensure that all Contractor Personnel exercise planning and forethought regarding the safety and health aspects of all Work performed by Contractor Personnel.
- 2.2 Job Briefing: Prior to the commencement of Work, before any changes are made in procedures or activities, and prior to resuming Work after any significant breaks (i.e. lunch), Contractor shall perform a Job Briefing and complete a written Job Briefing Form (pursuant to requirements set forth by OSHA).
- 2.2.1 The Job Briefing Form shall include, at a minimum: 1) Work procedures involved 2) hazards and mitigation associated with the Work, 3) special precautions, 4) energy source controls, 5) personal protective equipment requirements, 6) other contractors or Owner personnel working within or adjacent to Contractor's Work (or as specified in the applicable Business Unit appendix), and 7) task requirements for qualified and competent person(s).

- 2.2.1.1 Unless Contractor's Job Briefing Forms are approved in writing by Owner Representative prior to the start of Work, Contractor shall use Owner supplied Job Briefing Form in the applicable Business Unit appendix.
- 2.2.1.2 Contractor shall take appropriate action for individuals who fail to comply with the Job Briefing including performing Work outside the parameters of the Job Briefing.
- 2.2.2 Contractor shall make Job Briefing Forms available to all personnel where Work is performed and to Owner, upon request. Contractor shall review the Job Briefing Form with and obtain the signatures of any visitor(s) that arrive at the Jobsite prior to visitor(s) being allowed in the area where Work is taking place.
- 2.2.3 Contractor shall retain completed Job Briefing Forms pursuant to the record retention section of the Contract.
- 2.2.4 Owner expects all Contractor Personnel to continuously assess the Jobsite and Work activities for hazards throughout the day. Whenever a problem, circumstance, or result that was not covered in the Job Briefing is encountered during the course of the Work, Contractor shall stop Work immediately, evaluate the situation, and conduct a new or revised Job Briefing before resuming Work. Contractor shall immediately communicate to all affected personnel (see section 2.2.2) any changes to the Job Briefing that occur during the performance of Work.
- 2.3 Work Safety and Health Plan (WSHP): For high risk, complex, or long duration Work, Contractor may be required to submit a WSHP prior to the start of Work (see Business Unit appendix). The WSHP shall cover the Work of Contractor Personnel. Contractor shall collaborate with Owner on issues or informational "gaps" determined by Owner to be present in submitted WSHP. Contractor agrees and shall cooperate with Owner to modify and update any WSHP to accomplish the Work.
- 2.4 Emergency Planning: Contractor shall have an emergency action plan that has been documented and communicated to all Contractor Personnel. The emergency action plan shall include, at a minimum, the following:
  - 2.4.1 Emergency contacts;
  - 2.4.2 Jobsite location(s) or addresses;
  - 2.4.3 Location, name, contact information, and directions to closest emergency services and medical facility;
  - 2.4.4 On Jobsite communication methods (cell phone, radio, satellite phone, etc.);
  - 2.4.5 Procedure to follow in the event of an emergency.

### **3.0 GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS**

- 3.1 Unless otherwise approved by Owner in writing, Contractor shall ensure that Contractor Personnel complete the training, as further described below, prior to being allowed to commence Work.
- 3.2 Work involving significant safety-related risk exposure ("High Risk Work") requires OSHA training. This High Risk Work includes, but is not limited to, Work: on or near energized equipment; within confined

spaces; at heights requiring fall protection; during adverse weather (storms); in radiologically contaminated areas; on or near high traffic (land, air, or water) areas; in or around ash ponds; that involves excavation permits; that involves cranes, rigging, or hoisting; that involves chemicals with National Fire Protection Association (NFPA) or Hazardous Materials Identification System (HMIS) rating of 4 in any category; or that involves asbestos, heavy metals, radiation, silica, chromium, or other harmful substances that requires special training.

- 3.2.1 All Contractor Personnel who are performing High Risk Work on Owner Jobsites shall successfully complete, at a minimum, the OSHA 10-Hour for General Industry or Construction Training OSHA Electric Transmission and Distribution (ET&D) Partnership 10-Hour Training, or have specific written approval from Owner's Corporate Safety and Health Director and Business Unit Operations Manager (AEP Grade 10 or above) allowing equivalent training(s) to be accepted in lieu of OSHA training.
- 3.2.2 Before assuming a supervisory position, all Contractor Personnel Jobsite supervision for High Risk Work shall successfully complete the Occupational Safety and Health Standards for the General Industry or Construction Training ('OSHA 30-Hour'), OSHA Electric Transmission and Distribution (ET&D) Partnership 20-Hour Training, or have specific written approval from Owner's Corporate Safety and Health Director and Business Unit Operations Manager (AEP Grade 10 or above) allowing equivalent training(s) to be accepted in lieu of OSHA training.
- 3.2.3 New Contractor Personnel on High Risk Work shall complete such training within fourteen (14) calendar days of starting their first Work assignment on any Owner Jobsite. If Contractor Personnel leave before training is complete, they may not return to the Jobsite until the training is complete.
- 3.2.4 Owner may also require additional OSHA training at Contractor's expense.
- 3.3 A minimum of two currently trained Contractor Personnel in First Aid, Cardiopulmonary Resuscitation ('CPR') and Automated External Defibrillator ('AED') shall be present for each Jobsite unless specified otherwise in the Business Unit appendix.
- 3.4 All costs associated with the above-described training of Contractor Personnel shall be at the expense of Contractor.
- 3.5 Prior to entering Owner's Jobsite, all Contractor Personnel shall complete the AEP onboarding requirements, which may vary by Business Unit. This training takes approximately two (2) hours. All Contractor Personnel shall refresh such training on an annual basis prior to March 31<sup>st</sup>.
- 3.6 Owner may, at its sole discretion, require Contractor to repeat any training as a step towards remedying a Contractor's deficiency.

#### **4.0 SAFETY & HEALTH PROFESSIONAL**

- 4.1 Contractor's Jobsite Safety & Health Professional's sole responsibility and focus shall be safety and health oversight of the Work, specifically including, but not limited to, initiation, enforcement, maintenance, and administration of Jobsite safety and other loss prevention programs associated with Work.

- 4.2 The requirements for when Contractor shall provide one (1) or more Jobsite Safety & Health Professional(s) are in the Business Unit appendices, if applicable. Owner may require Contractor to assign additional Safety & Health Professional(s) if Owner determines the Work, Contractor's performance or other circumstances justify additional safety oversight.
- 4.3 Contractor shall ensure that each Jobsite Safety & Health Professional, at a minimum, has successfully completed OSHA 30-hour training and has one (1) of the following:
- 4.3.1 A professional safety certification from an industry recognized safety organization; or
  - 4.3.2 A college degree in a safety related field and at least two (2) years demonstrable safety management related experience; or
  - 4.3.3 At least five (5) years of increasing responsibility in professional, technical, safety management and/or electric utility operations experience.
- 4.4 In addition to the above, Contractor shall ensure that each Jobsite Safety & Health Professional has all of the following:
- 4.4.1 Current certification in administration of First Aid, Cardiopulmonary Resuscitation ('CPR') and Automated External Defibrillator ('AED') Training
  - 4.4.2 Incident investigation training and experience.
- 4.5 Owner may request verification of qualifications, resumes, or other documentation for review. Owner reserves the right to reject a Jobsite Safety and Health Professional. Failure by Owner to review the qualifications of a Safety & Health Professional does not relieve Contractor of its obligations under the Contract.

## **5.0 COMMUNICATION**

- 5.1 Contractor shall ensure that all Contractor Personnel clearly understand oral and written instructions, signs and labels associated with Work.
- 5.2 Contractor shall provide, at a minimum, two (2) multi-lingual Contractor Personnel that speak English for each non-English-speaking crew. When large crews are used, Contractor shall provide one (1) additional multi-lingual Contractor Personnel for every ten additional (10) crew members.
- 5.3 Contractor shall ensure multilingual Contractor Personnel are immediately available to support nursing, EMT responses to injuries or incidents, and during Site orientations. Contractor shall make sure their multilingual Contractor Personnel are easily identifiable by such means as the color of their hardhat, clothing, etc..., and inform Owner accordingly.
- 5.4 Contractor shall ensure, at least one (1) copy of all documents and reports, including Job Briefing Forms, are prepared in English.

## **6.0 WORK HOUR / WORK DAY LIMITATIONS**

- 6.1 Contractor shall staff and plan in a manner that prevents Contractor Personnel from working more than sixteen (16) hours in a rolling twenty-four (24) hour period. After working sixteen (16) hours, a minimum of eight (8) hours off Work shall occur before returning to Work.
- 6.1.1 For emergency assistance, the hour limitation is modified to a maximum of twenty-four (24) consecutive hours, after which a minimum of eight (8) hours off Work shall occur before returning to Work.
- 6.2 Contractor shall staff and plan in a manner that prevents Contractor Personnel from working more than thirteen (13) consecutive days without a twenty-four (24) hour period off Work.
- 6.3 Exceptions to the above requirements shall be requested by Contractor and be pre-approved in writing by the Owner's Business Unit management level identified in the Business Unit appendices.

## **7.0 CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS**

- 7.1 During the term of the Contract, Contractor shall maintain an approved qualification status within VERO. If during the Contract term Contractor fails to maintain an approved qualification status within VERO, then, at Contractor's cost and expense, and in addition to any other rights and remedies the Owner may have under the Contract or under the law, the Owner shall have the following rights:
- 7.1.1 The right to apply a probationary period where all Work performed by Contractor is temporarily stopped until an investigation is performed;
- 7.1.2 The right to stop the Work under the Contract until Owner is satisfied that the cause for the non-passing grade is remedied; and/or,
- 7.1.3 The right to terminate the Contract for cause if, in Owner's sole opinion, the grade cannot be improved to a passing level within a reasonable time.
- 7.2 Contractor shall only use AEP approved contractors (found in VERO) as Subcontractors. To initiate the process to utilize a Subcontractor that is not currently qualified by Owner in VERO, the Contractor shall have the Subcontractor join VERO and obtain an approved qualification status prior to any Subcontractor Work. Any exceptions to this must be approved in writing by Owner's Corporate Safety and Health Director and Business Unit Operations Manager (AEP Grade 10 or above) prior to the start of Subcontractor Work.
- 7.3 In the event Contractor chooses to use a Subcontractor(s) to perform Work at a Site without the Contractor present, Contractor shall ensure that such Subcontractor(s) has appointed a qualified and competent individual at the Site to be present at all times, to direct, and observe the Work.

## **8.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)**

- 8.1 Contractor Personnel shall wear, at a minimum, the following PPE while on any Jobsite:
- 8.1.1 Safety glasses, goggles, or prescription safety glasses with side shields that meet the specifications of ANSI Z87.

- 8.1.2 Face shields, in addition to safety glasses or goggles, where employees are performing tasks that could potentially cause flying material objects such as, but not limited to, chipping, welding, grinding, cutting, drilling, chiseling, or chemical hazards to the face. The face shield shall be rated for the type and degree of hazard.
- 8.1.3 Hardhats that meet the specifications of ANSI Z89.1.
- 8.1.4 Work gloves that provide protection for the type of work, when required. See BU Appendices for specific work glove requirements.
- 8.1.5 Hearing protection as required by OSHA and in Owner-designated areas.
- 8.1.6 Footwear appropriate to the known Jobsite hazards:
  - 8.1.6.1 Open-toed, open-heeled, and athletic footwear shall be strictly prohibited;
  - 8.1.6.2 Protective toe footwear that meet the safety-toe specifications of ASTM F2413 with a compression rating of C75 (i.e. safety toe shoes);
  - 8.1.6.3 Contractor Personnel that climb shall wear footwear with a defined heel, unless waived by Owner's Representative in writing;
  - 8.1.6.4 Additional protection such as sturdy upper portions, metatarsal guards, puncture resistant soles, etc. may be required based upon the Job Briefing for certain Work assignments or special environmental conditions.
- 8.1.7 Fall protection: 100% fall protection required at all times on poles, towers and similar structures.
- 8.2 Contractor shall review arc flash potential with Owner's Representative to determine the appropriate PPE.
- 8.3 Contractor shall wear additional PPE if required by Owner based upon Contractor's PPE assessment or special environmental conditions.

**9.0 INDUSTRIAL HYGIENE**

- 9.1 Metals and Heavy Metals:
  - 9.1.1 Unless directed otherwise, Contractor is responsible for personal industrial hygiene sampling when there are any contaminants that may pose an exposure hazard to Contractor Personnel (e.g. arsenic, lead, mercury, hexavalent chromium, cadmium, crystalline silica, etc.). Contractor shall provide copies of industrial hygiene test results to Owner.
  - 9.1.2 Contractor must comply with Owner's Negative Exposure Assessment Guidelines in determining when PPE and regulated area requirements can be removed.
  - 9.1.3 Owner requires regulated areas for all Work involving potential exposure to hexavalent chromium regardless of the type of Work conducted (General Industry or Construction). Owner's competent person for potential hexavalent chromium exposure shall be consulted regarding the appropriate size, location and demarcation of the regulated area.
  - 9.1.4 Owner's respiratory protection and ventilation requirements for welding, cutting and other hot Work are defined in the Welding, Cutting and Brazing Policy (see VERO at <https://verodms.com>). Filtering face piece respirators may only be used on a voluntary basis (not OSHA required) and only



in areas where there will not be an exposure above the Permissible Exposure Limits (PEL). Filtering face piece respirators include any fabric "dust mask" type respirators with filter efficiencies from 95 through 100.

9.2 Lead/Cadmium Based Paint:

9.2.1 Structural steel and equipment throughout Owner's facilities may have been coated with lead/cadmium based materials including galvanizing. Contractor shall treat all surfaces as containing lead/cadmium unless tested otherwise prior to performing any grinding, welding, sanding, heating, sandblasting or similar activity. Owner requires that any coating containing lead at a level of 0.05% (500 ppm) or greater be treated as a lead-containing coating.

9.2.2 In nearly all cases, abatement of lead/cadmium-containing coatings is required before any hot Work may be performed. Owner has a specific Post Abatement Hot Work (see VERO at <https://verodms.com>) process that Contractors must follow to ensure either abatement is effective or that Contractor Personnel are properly protected while performing hot Work after abatement.

9.2.3 Contractor shall submit to Owner, prior to beginning Work, its written lead/cadmium compliance program.

9.2.4 Contractor shall collect all removed lead/cadmium bearing paint and contaminated materials used for the removal of lead/cadmium bearing paint. These materials shall be placed in Contractor supplied packaging meeting the applicable US Department of Transportation requirements for the material and properly labeled and stored per Owner instructions.

9.3 Asbestos Containing Material:

9.3.1 Asbestos-containing materials (ACM) may exist in the form of insulating products, siding, coatings, gaskets and similar materials throughout Owner's facilities.

9.3.2 Contractor shall conduct ACM awareness training to inform Contractor Personnel of the possibility of asbestos on the Jobsite and the appropriate response (STOP and report it immediately) if suspected asbestos-containing material is encountered.

9.3.3 Contractor shall use care and diligence in the execution of its Work to avoid the disturbance of, or damage to, asbestos-containing material not specifically identified as a part of the Work. This may include, but is not limited to, the installation of protective barriers, temporary platforms or any other means deemed necessary by Contractor to comply with this requirement. Contractor Personnel shall immediately report the observance of any ACM or presumed asbestos-containing material (PACM) that is not intact to their supervision for immediate response. Contractor shall immediately notify Owner of any disturbance of or damage to asbestos-containing material, PACM or unknown material. Contractor is responsible for ensuring that its personnel and the public are not exposed to ACM material due to Contractor's disturbance of or damage to the ACM.

9.4 Hazardous Materials Management:

9.4.1 "Hazardous waste" shall have the meaning found at 40 CFR 261.3 and shall also include polychlorinated biphenyls (PCB) as defined at 40 CFR 761.3. "Hazardous chemical" shall have the

meaning found at 29 CFR 1910.1200© and 40 CFR 355.61. “Hazardous Material” shall have the meaning found at 49 CFR 171.8.

- 9.4.2 Contractor shall have procedures for proper labeling, storing, and handling of hazardous chemicals and hazardous wastes in a safe and secure manner.
- 9.4.3 Contractor shall minimize the quantities of hazardous chemicals it intends to use and hazardous waste it expects to generate. Contractor shall keep Owner informed of all hazardous chemicals that Contractor brings on Site and all hazardous wastes generated and its disposal management practices. Hazardous materials shall be packaged and transported in accordance with applicable transportation regulations.
- 9.4.4 When applicable to Contractor’s Work, Contractor shall provide storage containers of adequate size and compatibility for both hazardous chemicals and hazardous wastes with adequate weather protection. Damaged or leaking containers are unacceptable.
- 9.4.5 See Owner’s Representative for Safety Data Sheets for Owner generated and supplied products.
- 9.4.6 Chemicals containing 1,1,1-Trichloroethane, methylene chloride, trichloroethylene, tetrachloroethylene (perchloroethylene), 1-bromopropane (N-propyl bromide), any confirmed human carcinogen, asbestos, lead or mercury will not normally be approved by Owner.

## **10.0 MISCELLANEOUS JOBSITE REQUIREMENTS**

- 10.1 When performing excavation Work, Contractor shall comply with Owner’s excavation policy, including permits.
- 10.2 Contractor shall comply with the following regarding drilled excavations:
  - 10.2.1 Drilled excavations greater than thirty (30) inches in diameter and six (6) feet deep shall be protected by a guardrail system no less than six (6) feet from the edge of the excavation.
  - 10.2.2 Contractor Personnel who enter the guardrail system shall be protected from falling by a personal fall arrest system.
  - 10.2.3 When performing drilled excavations, Contractor shall have a fall retrieval plan, which includes local EMS rescue capabilities.
- 10.3 Contractor shall comply with AEP’s Confined/Enclosed Space Entry Policy including classification and monitoring tools, permits, and checklists. With prior review by Owner’s Representative, Contractor may use its confined or enclosed space entry procedure in accordance with article 9.3 of the AEP Confined/Enclosed Space Entry Policy. Furthermore, through coordination with the Owner’s Representative, there may be multiple permits for the same Work if there are multiple contractors in the same area or the Contractor is legally required to have documents for their own purposes. If multiple permits are used, the classifications must be the same or the higher of the two (2) classifications must be used for all permits.
- 10.4 Barricades shall be used to deter the passage of persons, vehicles, and equipment from restricted areas. Contractor shall routinely inspect and replace signage, labeling and barricade tape that is illegible, damaged, missing, etc.

- 10.5 Contractor shall comply with the following regarding the use of mobile cranes and lifting devices (for energized Work involving digger derricks and bucket trucks, see Business Unit appendices Section 3 instead):
- 10.5.1 Operators shall perform and document daily equipment inspections. Inspections shall include all safety and operational features as per manufacturer's safe operating manual or guidance.
  - 10.5.2 Qualified observers shall be assigned if any equipment will encroach within the trigger distance of energized overhead lines and equipment; or if any part of the equipment, boom, load line or load (including rigging and lifting accessories), if operated up to the equipment's maximum working radius, could encroach the trigger distance to energized lines or equipment. All Work activities shall be stopped when the qualified observer becomes unavailable, even only temporarily.
  - 10.5.3 No person shall be permitted within the barricaded radius of a crane while the crane is in operation.
  - 10.5.4 No person shall ride on equipment when in operation.
  - 10.5.5 Cranes shall be equipped with an Anti-Two-Block device.
- 10.6 All Work performed on or adjacent to existing public roads or rights-of-way shall be performed in conformance to the requirements of the Manual on Uniform Traffic Control Devices (current revision), state, local jurisdiction or AEP operating company.
- 10.7 Contractor shall keep all substation gates closed and locked at all times unless under direct observation by an attendant.
- 10.8 Upon entry or exit of a substation, Contractor shall notify the appropriate Dispatch Authority.
- 10.9 Testing of Grounds – All grounds shall be tested in accordance with state, local, and federal guidelines, and the most current ASTM F2249 Standard Specification for In-Service Test Methods for Temporary Grounding Jumper Assemblies Used on De-Energized Electrical Power Lines and Equipment.
- 10.10 All extension cords and electric hand tools shall be plugged into a Ground-Fault Circuit interrupter (GFCI) provided by the Contractor. Contractor Personnel shall not rely on the existing GFCI receptacles on the Jobsite.
- 10.11 Unless Contractor's Welding, Cutting, and Brazing policy is approved in writing by Owner's Corporate Safety and Health Director and Business Unit Operations Manager (AEP Grade 10 or above) prior to the start of Work, Contractor shall comply with Owner's Welding, Cutting, and Brazing policy.
- 10.12 Unless Contractor's Attentive Driving policy is approved in writing by Owner's Corporate Safety and Health Director and Business Unit Operations Manager (AEP Grade 10 or above) prior to the start of Work, Contractor shall follow Owner's Attentive Driving Policy while performing Work for Owner.
- 10.13 Backing motor vehicles should be avoided wherever possible, such as by taking pull through opportunities. If backing cannot be avoided employees should back upon arrival. A second employee, if present, shall be used as a Spotter while backing.
- 10.14 Contractor shall follow Owner's Workplace Aggression and Police Escort Required Policies.

## **11.0 TOOLS**

- 11.1 Prior to the use of any fabricated or modified tools with no original equipment manufacturer, Contractor shall notify Owner and provide for Owner's review design documentation with professional engineer stamped approval. At its sole discretion, Owner may prohibit or restrict Contractor's use of such tools.
- 11.2 Pocket knives or non-safety utility knives shall not be used for cutting/stripping unless it is impossible to utilize another tool designed for that task. Not having the proper cutting tool available on site is not an excuse for using knives. Cutting tools other than a knife, i.e. wire cutters/strippers, side cutters, snips and other cutting tools shall always be used first. A safety utility knife with an automatic retracting blade or other means of blade protection would be the second selection. The use of a company issued pocket knife or non-safety utility knife is only permitted if a safety utility knife or other cutting tool cannot be used. The second and third option (knives) can only be used in combination with wearing appropriate hand protection, as determined by the Job Briefing.
- 11.3 No handheld grinder shall be used with a switch that is capable of being locked in the "ON" position unless a hazard analysis determines it is safer. Handheld grinders 4 1/2" thru 6" shall be equipped with a safety clutch to aid in preventing kickback and potential personal injury to the user. Contractor(s) shall have a grinder control procedure established to assure that when grinders are being used for either grinding or cutting, front line supervision has determined that a grinder is the safest tool for the Work.

## **12.0 REPORTING REQUIREMENTS**

- 12.1 Event Reporting: Contractor shall report to Owner all Contractor Personnel safety-related events in accordance with the applicable AEP General Terms and Conditions and the requirements listed below. Safety-related events include but are not limited to the following:
- 12.1.1 near miss events
  - 12.1.2 good catches
  - 12.1.3 first aid and minor events
  - 12.1.4 OSHA recordable injuries
  - 12.1.5 Flashes
  - 12.1.6 Outages
  - 12.1.7 vehicle incidents
  - 12.1.8 spills/releases that cause safety concerns
  - 12.1.9 underground utility strikes
  - 12.1.10 energy control errors (Clearance Permit, Lock Out Tag Out (LOTO), and Switching and Tagging)
  - 12.1.11 regulatory safety citations/visits
  - 12.1.12 property damage
  - 12.1.13 equipment incidents
- 12.2 After securing the scene, Contractor shall immediately notify Owner's Representative(s) (verbal notification is sufficient) of the event. Do not disturb the scene of an incident unless necessary to attend to injured persons

or to prevent additional injury, property damage or loss. If the incident involved a personal injury requiring more than first aid treatment, or significant equipment or estimated property damage in excess of \$10,000, Work may not resume and no items at the scene may be moved or discarded until authorized by Owner or other legal authority.

- 12.3 By 8:00 a.m. the following calendar day, Contractor shall submit a preliminary notification to Owner’s Representative(s) using VERO (<https://verodms.com>).
- 12.4 Contractor shall submit a detailed written report within five (5) calendar days, unless granted an extension by Owner. This report must be submitted via VERO following Owner’s report format and instructions.
- 12.5 Monthly Reporting: Contractor shall submit monthly reports to Owner that include at minimum, the following::
  - 12.5.1 monthly Work hours
  - 12.5.2 fatalities
  - 12.5.3 OSHA recordable incidents, including lost time and restricted days
  - 12.5.4 preventable vehicle incidents
  - 12.5.5 first aid injuries
  - 12.5.6 good catches and near misses
  - 12.5.7 flashes
  - 12.5.8 outages
- 12.6 Contractor shall report the above listed information by the 4<sup>th</sup> Business Day of the calendar month via VERO (<https://verodms.com>).

**13.0 OWNER JOBSITE OBSERVATIONS/AUDITS**

- 13.1 Owner or Owner’s Representative may conduct random Jobsite safety and health observations and audits. Contractor shall cooperate fully with Owner’s Representatives during a Jobsite observation or audit.
- 13.2 In the event Owner determines that an unsafe condition exists at the Jobsite, Owner shall have the absolute right to require corrective measures be immediately taken or to stop Work until the unsafe condition is corrected by Contractor. Contractor may be responsible for costs and expenses associated with the corrective measures.

**14.0 CONTRACTOR JOBSITE OBSERVATIONS**

- 14.1 Contractor representatives, at a minimum, shall perform and document a Job Site Observation (JSO) based on the following table:

Contractor Representative	Minimum Frequency <sup>1</sup>
Front line leader (ex. Foreman/Crew Leader)	Weekly <sup>2</sup>
Site Management (ex. General Foreman/Superintendent)	Weekly <sup>2</sup>
Safety & Health Professional	Daily <sup>3</sup>
Operations Manager	Monthly
Senior Management	Quarterly

Notes:

1. Minimum frequency is the frequency with which the Contractor representative performs a JSO and can be on one or more Contractor crews and/or Sites.
2. For Generation work, see the Generation Appendix for frequency and documentation method.
3. See Transmission, Distribution, and Vegetation Management Appendices for additional guidance.

**15.0 PROHIBITED FROM JOBSITE**

- 15.1 Firearms, alcohol, illegal drugs, or drugs taken for non-medicinal purposes are prohibited on all Owner Jobsites.
- 15.2 Contractor shall be responsible for all Contractor Personnel who are under the care of a physician and are taking medicine that may alter the employee's physical or mental ability. Contractor shall determine the necessity to modify the employee's job assignment while undergoing such treatment.
- 15.3 If prohibited firearms or suspected illegal drugs are discovered on any Owner's property or Jobsite, whoever discovers the firearms or suspected illegal drugs shall:
  - 15.3.1 First, if possible without putting themselves or others in harm's way, attempt to secure the location and ensure that others cannot come in contact with the firearms or suspected illegal drugs. Do not handle or move firearms or suspected illegal drugs from their discovered location.
  - 15.3.2 Second, immediately contact Owner's Representative and jointly make a decision whether or not the situation requires a call to the local law enforcement authorities. Immediately call the local law enforcement authorities and report the discovered item(s) if (a) neither Owner's Representative is available; (b) there is a threat of harm to any person; or (c) there is a risk of improper removal or disposal of the firearms or illegal drugs.
  - 15.3.3 Third, call local Owner's security personnel or call Owner's general Security hotline at 1-866-747-5845.
  - 15.3.4 Fourth, for incidents involving Contractor personnel, Contractor shall submit a report(s) to Owner.
- 15.4 Prior to starting Work, Contractor shall provide Owner a list of all Contractor Personnel that Contractor intends to use on Jobsite. The list shall identify the individuals by their name and the last three digits of the individual's Social Security Number.
- 15.5 Owner will identify any personnel the Contractor intends to use that are restricted from Owner's Jobsite. Owner, at its sole discretion, may deny access to any individual who has previously been removed from a Jobsite by Owner or any Contractor for any reason.
- 15.6 Contractor may request restricted Contractor Personnel to be cleared for Work performance. A letter addressing the original safety violation(s) or reason(s) for removal and including any documentation supporting the request shall be sent to Owner for approval. Contractor Personnel shall not perform Work at any of Owner's Jobsites until approved by Owner. Said approval may be granted or withheld at Owner's sole discretion.

- 15.7 Owner may deny access to its Jobsites to any person who fails to comply with the applicable AEP General Terms and Conditions, these Supplemental Safety Terms and Conditions, or, in Owner's sole judgment, otherwise demonstrates unsafe or unacceptable behaviors. Examples of unsafe or unacceptable behaviors include, but are not limited to:
- 15.7.1 Unsafe job performance
  - 15.7.2 Failure to pass drug/alcohol test
  - 15.7.3 Refusal to submit to a drug/alcohol test
  - 15.7.4 Displaying incompetence in performing their job
  - 15.7.5 Employees that are determined to be unfit for project employment
  - 15.7.6 Participating in pranks, horseplay, or practical jokes
  - 15.7.7 Failure to report injuries and/or accident
  - 15.7.8 Making threats, harassing, intimidating, fighting, or committing acts of aggression
  - 15.7.9 Theft or vandalism
  - 15.7.10 Insubordination
  - 15.7.11 Violation of AEP's Universal Life Saving Rules
- 15.8 Contractor shall immediately provide Owner with the name of any Contractor Personnel removed by Contractor from Owner's property and the reason(s) for his or her removal.
- 15.9 If a worker(s) has a union affiliation, Contractor shall promptly notify the appropriate local union hall of such worker's removal from Owner's property and the reason(s) for his or her removal.

**16.0 AEP POLICIES AND PROCEDURES**

- 16.1 AEP Policies and Procedures that the Contractor shall comply with per the AEP General Terms and Conditions and these AEP Safety and Health Supplemental Terms and Conditions can be found in VERO (<https://verodms.com>).
- 16.1.1 Excavation Policy
  - 16.1.2 Lead Exposure Control Post-Abatement Hot Work Procedures
  - 16.1.3 Negative Exposure Assessment (NEA) Guidelines
  - 16.1.4 Scaffolding Safety Procedure
  - 16.1.5 Welding, Cutting and Brazing Policy
  - 16.1.6 Confined Enclosed Space Entry Policy
  - 16.1.7 Attentive Driving
  - 16.1.8 Police Escort Required Policy
  - 16.1.9 Workplace Aggression Policy
  - 16.1.10 AEP's Universal Life Saving Rules

## 17.0 **DEFINITIONS AND ABBREVIATIONS**

- 17.1 **AEP** means any one or more of the companies of the American Electric Power System as may be specified in the Contracting Instrument to the Contract and means same as Owner as defined in the applicable AEP General Terms and Conditions.
- 17.2 **AEP General Terms and Conditions** means the applicable AEP general terms and conditions referenced in the Contract which may be one of the following: AEP General Terms for Labor and Services; AEP General Terms and Conditions for Engineering, Procurement and Construction Work; Electric Transmission Texas (ETT) General Terms and Conditions for Labor and Services; OVEC/IKEC General Terms for Labor and Services; or OVEC/IKEC General Terms and Conditions for Engineering, Procurement and Construction Work (as amended from time to time).
- 17.3 **Business Unit (BU)** means for the purposes of these AEP Safety and Health Supplemental Terms and Conditions, a division of AEP that is responsible for providing a product line or service area to the affiliated companies of the American Electric Power System separately identified so each line or service area is considered a business [For purposes of these AEP Safety and Health Supplemental Terms and Conditions: AEP Distribution, AEP Vegetation Management, AEP Generation, AEP Telecom, AEP Transmission, and AEP Workplace Services].
- 17.4 **Contractor Personnel** means all employees, crews, workers, and agents of Contractor and all Subcontractors and its employees, crews, workers, and agents involved in the performance of Work.
- 17.5 **Job Briefing Form** means a document used to identify hazards, procedures, precautions, and mitigating actions to facilitate a pre-Job safety discussion and safely complete the Work as provided to Contractor by Owner, or provided by Contractor, but in accordance with all OSHA requirements.
- 17.6 **Jobsite** means a Site where the Work shall be performed.
- 17.7 **Negative Exposure Assessment Guidelines** means an exposure assessment that, with a high degree of certainty, shows exposures are expected to be less than the Permissible Exposure Limit, as defined in 17.10 (or other appropriate exposure guideline).
- 17.8 **OSHA Electric Transmission and Distribution (ET&D) Partnership** means OSHA Strategic Partnership Agreement between the Occupational Safety and Health Administration and The Electrical Transmission and Distribution Construction Contractors, The International Brotherhood of Electrical Workers (the IBEW), and Trade Associations.
- 17.9 **Owner's Representative** means the Jobsite or Business Unit representative identified in the contract as the point of contact for the Work.
- 17.10 **Permissible Exposure Limits (PEL)** means the minimum legal limit as set by either local, state, or federal law in the United States for exposure of an employee to a chemical substance or physical agent.
- 17.11 **Safety & Health Professional** means a trained and competent person focused on identifying workplace hazards, mitigation actions, and the prevention of workplace injuries.
- 17.12 **Site** means the definition as stated in the applicable AEP General Terms and Conditions.
- 17.13 **Work** means the definition as stated in the applicable AEP General Terms and Conditions



**18.0 REVIEW AND REVISION HISTORY**

DATE	REVISION #	COMMENTS	REVIEWER
10/1/2019	0	Initial Issue	Contractor Safety Management Technical Committee
12/18/2020	01	Added Appendix G: AEP Energy Supply	Energy Supply, Energy Supply Safety & Health, Corporate Safety & Health, and AEP Legal

## Appendix A: Distribution

As part of Contractor’s obligations under the AEP Safety and Health Supplemental Terms and Conditions, Contractor and all Contractor Personnel shall follow the additional requirements set forth in this Appendix A: Distribution (this “Appendix”) while performing Work for Owner’s Distribution Operations. This Appendix supplements the corresponding sections as listed in the AEP Safety and Health Supplemental Terms and Conditions.

### 1.0 INTRODUCTION

NONE

### 2.0 SAFETY & HEALTH PLANNING

#### 2.2 Job Briefings:

2.2.1.1 Attachment: Owner’s Job Briefing Form

2.3 For Distribution Work a WSHP will not typically be required. For unique long-duration Distribution projects, a WSHP may be required. Owner will specify any Work where a WSHP is required.

2.4 Emergency Planning: Emergency planning information shall be documented on the Job Briefing Form. Contractors shall contact the Distribution Dispatch Center in any case of emergency.

### 3.0 GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS

#### 3.7 Qualified and Non-Qualified Electrical Employees

##### 3.7.1 Qualified Electrical Employee

3.7.1.1 Owner requires that qualified electrical Contractor crew members involved in the operation, construction, maintenance, or working on or near electric power generation, control, transformation, transmission, and distribution lines and equipment will be qualified as required by OSHA in 29 CFR 1910.269 and 29 CFR 1926 Subpart V.

Owner requires that qualified electrical Contractor crew members involved in the

3.7.1.2 Operation, repairing, testing, verification, or exposure to or working on or near live parts energized at 50 volts or more) will be qualified as required by OSHA 1910 Subpart S and OSHA 1926 Subpart K.

3.7.1.3 Owner defines a qualified electrical employee or “Qualified Employee” as a person having been trained and having demonstrated knowledge in the construction and operation of electrical power generation, transmission and distribution equipment involved and the associated hazards. A Qualified Employee must be trained and competent in (list not all-inclusive):

3.7.1.3.1 The skills and techniques necessary to distinguish exposed live parts of electrical equipment;

3.7.1.3.2 The skills and techniques necessary to determine the nominal voltage of exposed live parts;

- 3.7.1.3.3 The minimum approach distances or safe working distances specified by OSHA corresponding to the voltages to which the Qualified Employee will be exposed;
- 3.7.1.3.4 Training to recognize and avoid electrical hazards;
- 3.7.1.3.5 Safety practices, including applicable emergency procedures (such as pole top & manhole rescue, first aid/CPR, Lock Out/Tag Out), that are related to the work, and;
- 3.7.1.3.6 The proper use of special precautionary techniques, personal protective equipment/clothing, insulating, and shielding materials, and insulated tools for working on or near exposed parts of electrical equipment.
- 3.7.1.4 Until these Qualified Employees have demonstrated proficiency in the work practices involved, they are considered to be employees undergoing on-the-job training and must be under the direct supervision of a qualified person at the all times. Contractor crew members shall only perform Work at the level for which they are qualified.
- 3.7.1.5 At Owners request, Contractor shall supply documentation concerning the types of skills assessments performed, training programs and how the Contractor will ensure that their Qualified Employees demonstrate competencies. Contractor shall certify that each Qualified Employee has received training required by this section. Certification shall be made when the Qualified Employee has demonstrated proficiencies in the Work assigned.
- 3.7.1.6 Contractor shall maintain a list of Qualified Employees able to work on or near primary, able to serve as a qualified observer and able to work secondary service. Qualified list shall be available upon request from Owner during normal operation and prior to service restoration.
- 3.7.1.7 Contractor shall ensure that its Qualified Employees have the appropriate training to perform the Work.
- 3.7.1.8 Owner, at its sole discretion based on Work observations or for other reasons, may at any time withdraw its acceptance of any previously approved or completed training and require Contractor Personnel to repeat training.
- 3.7.2 Non-Qualified Electrical Employee
  - 3.7.2.1 Contractor shall provide training for non-qualified electrical Contractor Personnel for the purpose of entering or working within electrical areas (i.e., electrical vaults, manholes, poles). Contractor shall provide training for non-qualified electrical Contractor Personnel who will be working near energized lines or equipment energized at 50 volts or more (i.e., civil contractors, laborers, locators, pole treatment/inspection, etc.). All direct and indirect costs of this training are Contractor's sole responsibility.

- 3.7.2.2 Owner defines a non-qualified electrical employee or “Non-Qualified Employee” as a person who has not been trained or authorized to conduct electrical work. A Non-Qualified Employee must be trained and competent in (list not all-inclusive):
    - 3.7.2.2.1 Understanding of electrical hazards;
    - 3.7.2.2.2 Electric shock;
    - 3.7.2.2.3 What is safe to touch and what is not safe to touch in specific areas they will be entering;
    - 3.7.2.2.4 Hazard Reporting;
    - 3.7.2.2.5 The maximum voltage of the area/equipment;
    - 3.7.2.2.6 The minimum approach distances for the maximum voltage within the area, and;
    - 3.7.2.2.7 Recognition and proper use of protective equipment that will be used to provide protection and in the work practices necessary for performing their specific work assignments while working near energized lines or equipment energized at 50 volts or more.
  - 3.7.2.3 At Owners request, Contractor must supply documentation concerning the types of skills assessments performed, training programs and how the Contractor will ensure that their Non-Qualified Employees demonstrate competencies. Contractor shall certify that each Non-Qualified Employee has received training required by this section. Certification shall be made when the Non-Qualified Employee has demonstrated proficiencies in the Work assigned.
  - 3.7.2.4 Contactor shall ensure that Non-Qualified Employees and Subcontractor(s) Non-Qualified Employees have the appropriate training and safety instruction to perform the Work. Contractor shall also ensure that Non-qualified employees do not engage in any Work prior to completing the relevant training.
- 3.8 Qualified Observer
- 3.8.1 A qualified observer (“Qualified Observer”) is required for any period while Contractor Personnel are performing Work by utilizing insulated gloves on conductors or equipment above six-hundred (600) volts to ground. The Qualified Observer must be positioned on the ground and shall be trained and prepared to perform emergency rescue procedures, if necessary (Emergency tasks that are necessary to safeguard the public are exempt from requiring Qualified Observer).
  - 3.8.2 In addition to OSHA requirements, Qualified Observer shall:
    - 3.8.2.1 Understand the work being observed
    - 3.8.2.2 Be capable of identifying nominal voltages, energized components, minimum approach distances, adequacy of cover-up, and proper safe work practices and PPE/PIPE associated with the work

- 3.8.2.3 Have sufficient understanding of the work, to the extent that they can identify errors that could result in injury, so they can alert the person(s) being observed before possible injury occurs
- 3.8.2.4 Be identified by name on Job Briefing Form
- 3.8.2.5 Apprentice 4 will be the lowest classification that can serve as a Qualified Observer
- 3.8.3 Apprentice 4 is one that meets the following criteria: Apprentices can work on secondary voltages up to 600 volts under general supervision. Apprentices may operate cutouts, line switches, recloses, and other sectionalizing devices under direct supervision. Apprentices may also refuse line and transformer devices, test de-energized lines and equipment and remove grounds under direct supervision.
- 3.8.4 Person in charge of Work Site, with agreement of the worker being observed shall make the final determination if an individual Contractor Personnel is suitable to be a designated “Qualified Observer”.
- 3.8.5 Qualified Observer shall bare a special marking (i.e. arm band, patch, visible label, etc.), clearly identifying them as “Qualified Observer”.
- 3.9 Additional training and qualification requirements:
  - 3.9.1 The following list (not all-inclusive) of Work shall be used as a guide in order to help the Contactor ensure its Contractor Personnel are properly trained, competent, or qualified to perform such Work:
    - 3.9.1.1 Digger Derrick & Bucket Truck operation
    - 3.9.1.2 Qualified Electrical
    - 3.9.1.3 Energy Isolation and Temporary Grounding
    - 3.9.1.4 Confined or Enclosed Space
    - 3.9.1.5 Horizontal Directional Drilling operation
    - 3.9.1.6 Excavation & Trenching
    - 3.9.1.7 Scaffolding
    - 3.9.1.8 Personal Protective Equipment (PPE)
    - 3.9.1.9 Department of Transportation requirements
    - 3.9.1.10 Line Clearance Tree Trimming operation
    - 3.9.1.11 Cranes & Rigging
  - 3.9.2 Contractor may be required to complete Owner operating company specific training such as switching and tagging and customer service training. Owner will specify when this is required and reimburse Contractor for the cost of such training.

**4.0 SAFETY AND HEALTH PROFESSIONAL**

4.2 When Contractor has twenty (20) or more total Contractor Personnel on various projects within individual Owner operating companies, Contractor shall have a full-time, Dedicated Safety Professional assigned to ensure Contractor's safety program is being enforced. An additional Dedicated Safety Professional shall be assigned for every increase of fifty (50) Contractor Personnel or two (2) hours of drive time on Owner property. When Contractor has ten (10) or less total Contractor Personnel on various projects within individual Owner operating companies, Contractor shall at minimum visit the various Sites or Work crews weekly to ensure Contractor's safety program is being enforced.

**5.0 COMMUNICATION**

NONE

**6.0 WORK HOUR / WORK DAY LIMITATIONS**

6.3 Exceptions to the 16 hour and 13 day rules must be approved by the Incident Commander of the event or the Manager of the department responsible for the Work.

**7.0 CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS**

NONE

**8.0 PERSONAL PROTECTIVE EQUIPMENT**

8.2 Arc Flash Policy

8.2.1 Contractor Personnel who perform Work on or near energized facilities and equipment shall wear arc rated clothing equal to or greater than Owner's incident energy. Additional personal protective equipment, such as Fire Retardant rated face shields and balaclavas, shall be worn by Contractor Personnel, when Contractor Personnel are exposed to arc flash hazards in excess of the minimum requirements set forth in following table (Table 1).

Table 1

Minimum Head and Face Protection		
Equipment Required	Arc-Rated Faceshield with a Minimum Rating of 8 cal/cm <sup>2</sup> *	Arc-Rated Hood or Faceshield with Balaclava
Single-phase, open air	9 – 12 cal/cm <sup>2</sup>	13 cal/cm <sup>2</sup> or higher**
Three phase	5 – 8 cal/cm <sup>2</sup>	9 cal/cm <sup>2</sup> or higher***

\*These ranges assume that employees are wearing hardhats meeting the specifications in 1910.135 or 1926.100(b)(2), as applicable.

\*\*The arc rating must be a minimum of 4 cal/cm<sup>2</sup> less than the estimated incident energy; note that 1926.960(g)(5)(v) permits this type of head and face protection, with a minimum arc rating of 4 cal/cm<sup>2</sup> less than the estimated incident energy, at any incident energy level.

\*\*\*Note 1926.960(g)(5)(v) permits this type of head and face protection at any incident energy level.

- 8.2.2 Owner shall supply Contractor with appropriate system requirements based on local electrical system configuration. Contractor and Owner shall review owner’s incident energy prior to start of Work.
- 8.2.3 All Contractor Personnel that are covered under these Safety and Health Supplemental Terms and Conditions shall dress in his or her arc rated clothing prior to arrival on Site.
- 8.2.4 In addition to the requirements as outlined by OSHA and per Owner’s policy, the requirements for Contractor Personnel to wear the protective clothing and equipment working on or near exposed, energized part(s) includes, but is not limited to the following examples of potential arc flash exposures:
  - 8.2.4.1 When working within the minimum approach distances;
  - 8.2.4.2 When determined by incident energy analysis;
  - 8.2.4.3 When rubber gloves or rubber gloves and sleeves are required;
  - 8.2.4.4 When performing hot-stick work;
  - 8.2.4.5 When bonding or working “bare hand method”;
  - 8.2.4.6 When grounding conductors or equipment;
  - 8.2.4.7 When testing lines or equipment to be de-energized;
  - 8.2.4.8 When performing switching operations;
  - 8.2.4.9 When entering enclosed/confined spaces with energized lines or equipment;
  - 8.2.4.10 When disconnecting or connecting testing meters;
  - 8.2.4.11 When a Contractor Personnel is required to physically assist with energized Work on lines or equipment where mechanical failure or human error could expose employee to a flash.
  - 8.2.4.12 When in a substation, unless labeled or identified as being different, arc flash boundary to exposed, energized parts is fifteen (15) feet. Also, specific to equipment inside a control

house and unless labeled or identified as being different, arc flash boundary to exposed parts energized from 50 V to less than 300 V is 3 feet 6 inches.

8.2.5 In addition, Contractor Personnel shall comply with the following:

8.2.5.1 All outer layers of clothing shall have the appropriate arc flash rating (including the upper and lower body). When a shirt is worn as the outer layer, it shall be long sleeves. Sleeves shall be rolled down and buttoned with the shirt tails tucked into the trousers. When an additional layer is required (such as, but not limited to, a coat or overalls) the outer layer shall have the appropriate arc flash rating.

8.2.5.2 Arc flash rated clothing shall be worn as constructed by the manufacturer. Altering arc flash rated clothing (i.e. removing sleeves or collars, etc.) is prohibited.

8.2.5.3 Clothing made from acetate, nylon, polyester, or polypropylene that is not arc flash rated shall not be worn under arc flash rated clothing or by itself while employees are exposed to arc flash hazards. Garments made from 100% natural fibers (i.e. cotton, wool) may be worn under arc flash rated clothing, but shall be free from stains or flammable products, screen printing, iron-on transfers, paint, etc.

8.3 All workers within the right-of-way who are exposed to either traffic or work vehicles must wear the appropriate high visibility vest.

## **9.0 INDUSTRIAL HYGIENE**

9.2 Lead is also present throughout Owner's underground facilities (i.e., lead splicing).

9.3.3 Prior to the commencement of Work, both Owner and Contractor shall determine the presence and form of ACM. If ACM is determined to be present, Contractor shall submit a plan to Owner, outlining the appropriate measures Contractor will take while either working around ACM or in the abatement of ACM. Said plan shall be approved by Owner prior to the commencement of Work, and in accordance with Owner's policies including the proper disposal of ACM at Owner's approved waste disposal sites.

9.5 Owner requires any Work task involving Crystalline Silica, such as concrete sawing or drilling, is evaluated by Contractor to determine Contractor Personnel protective controls.

## **10.0 MISCELLANEOUS JOBSITE REQUIREMENTS**

10.4 Barricading

10.4.1 Hazardous voltages will exist on equipment should conductive portions inadvertently come in contact with energized conductors during the course of Work. These voltages are extremely harmful if not fatal should Contractor Personnel come in contact with the vehicle or equipment during this time. The barricade is erected to ensure that Contractor Personnel do not come in contact with the vehicle or equipment during that time. Traffic cones and ropes may be used as an alternative in special circumstances. The barricading rope shall encompass all conductive attachments that extend



from the vehicle or equipment whenever possible. If this arrangement cannot be accomplished, then other measures must be taken to ensure the security of this vehicle.

- 10.4.2 Derricks and Aerial devices shall be barricaded to prevent Contractor Personnel on the ground from falling objects or touching the aerial device in the event of an accidental contact with energized conductors. The barricaded area shall also be extended beyond temporary ground rod or anchor, if applicable. Contractor Personnel shall not lean across the barricade to access the vehicle while the barricade is in place. When the barricaded area needs to be entered the observer shall confirm that all Work aloft is stopped. They shall communicate with the operator who shall position the derrick or aerial device at minimum ten (10) feet from energized conductors and stop operation while the Contractor Personnel accesses the vehicle. In this situation, the Contractor Personnel accessing the vehicle shall lower the barricade to access the truck and leave it down until no further contact is necessary, Contractor Personnel shall then reinstall the barricade and communicate with the operator that it is safe to resume Work. Work will only restart after the observer has confirmed that the barricaded area is clear.
- 10.4.3 Before the barricade is installed, a fire extinguisher, a pair of rubber gloves and sleeves, gaffs, climbing belt and fall arrest equipment (for climbing jobs and aerial devices without rescue), handline, rubber blanket (with aerial device), fire resistant clothing, and any additional tools and equipment needed for the job shall be removed from the vehicle or equipment and placed in an accessible location outside the barricaded area.
- 10.4.4 Barricades shall be installed encompassing all four corners of a vehicle or equipment separated from the vehicle or equipment by non-conductive supports and demarcated by highly visible Danger rope and Danger warning signs to align with degree of hazard attached to those supports or rope.
- 10.4.5 The following are primary examples of vehicles and equipment where barricading is required – this list is not all inclusive:
- 10.4.5.1 Bucket trucks
  - 10.4.5.2 Digger derricks
  - 10.4.5.3 Wire puller/tensioner
  - 10.4.5.4 Directional boring machines
  - 10.4.5.5 Backyard machines
- 10.15 Additional requirements:
- 10.15.1 Cable Verification – Immediately prior to cutting any control cable, Contractor Personnel shall have a Contractor Personnel verify that it is the proper cable and that it is de-energized.
- 10.15.2 Guard Structures – All hotline crossings and all road crossings shall be protected by the use of a guard structure. Guard structures (including equipment used as guard structures) shall be installed prior to disconnecting the conductor and shall remain in place until the conductor is clipped in.

10.15.3 Placement of Grounds – The location of all grounds on Owner’s property shall be tracked and documented by Contractor. Grounds shall be installed and removed maintaining minimum approach distance. Grounds shall be inspected prior to each use. All Grounds shall be flagged.

10.15.4 Hose Safety Whip Checks - Hose safety whip checks shall be utilized on all pneumatic air hose assemblies.

10.15.5 Hot Boards

10.15.5.1 When working by the insulating gloves method from the pole on conductors or equipment that is energized at phase-to-ground voltages greater than as defined by Owner’s Operating Unit or phase-to-phase voltages greater than as defined by Owner’s Operating Unit, an insulating (or insulated) working surface shall be used. When working from the insulating work platform, care must be taken to isolate the employee from the pole by using an insulated fall protection device or rubber blanket to isolate the employee’s belt from the pole.

10.15.5.2 The purpose of the insulating platform (hot or buck board) is to isolate the Contractor Personnel from conductive objects at ground potential such as the pole, pole grounds and other hardware. Special care should be exercised to be aware that contacting anything that is grounded will defeat the insulation of the hot board.

10.15.5.3 When working from a hot board, all wires and materials that are grounded or operating at a different voltage from the line or equipment being worked on shall be covered with appropriate cover up material.

**11.0 TOOLS**

NONE

**12.0 REPORTING REQUIREMENTS**

NONE

**13.0 OWNER JOBSITE OBSERVATIONS/AUDITS**

NONE

**14.0 CONTRACTOR JOBSITE OBSERVATIONS**

NONE

**15.0 PROHIBITED FROM JOBSITE**

NONE

**16.0 DISTRIBUTION POLICIES AND PROCEDURES**

NONE

**17.0 DEFINITIONS AND ABBREVIATIONS**

NONE

## **Appendix B: Vegetation Management**

As part of Contractor’s obligations under the AEP Safety and Health Supplemental Terms and Conditions, Contractor and all Contractor Personnel shall follow the additional requirements set forth in this Appendix B: Vegetation Management (this “Appendix”) while performing Work for Owner’s Forestry Business Operations. This Appendix supplements the corresponding sections as listed in the AEP Safety and Health Supplemental Terms and Conditions.

### **1.0 INTRODUCTION**

NONE

### **2.0 SAFETY & HEALTH PLANNING**

#### 2.2 Job Briefings:

2.2.1.1 Attachment: Owner’s Job Briefing Form

2.3 For Vegetation Management Work, a WSHP will not typically be required. For unique long-duration projects, a WSHP may be required. Owner will specify any Work where a WSHP is required. Furthermore, Contractor may be required to submit an annual safety plan that addresses such things as safety culture, incident and injury prevention, a “good catch” program, jobsite observation frequencies, and upcoming safety related initiatives.

### **3.0 GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS**

#### 3.2 OSHA Training

3.2.1 Until OSHA 10 or equivalent training is developed to be specifically applicable to the vegetation management industry, vegetation management Contractors are exempt from this requirement.

### **4.0 SAFETY AND HEALTH PROFESSIONAL**

4.2 When Contractor has twenty-five (25) or more total Contractor Personnel on various projects within an operating company, Contractor will provide a dedicated Safety and Health Professional (safety manager) to visit the various Work Sites and Work crews to ensure that Contractor’s safety program is enforced. An additional full-time dedicated Safety and Health Professional (safety manager) must be provided when Contractor Personnel performing Work for Owner exceeds 250 employees, and for every multiple of 250 Contractor Personnel thereafter.

4.2.1 When Owner requires Contractor to provide Safety and Health Professional(s) in excess of the Contractor safety manager requirements stated above, such Safety and Health Professional position will only be billable for time directly associated with Contractor’s Work for Owner.

### **5.0 COMMUNICATION**

NONE

**6.0 WORK HOUR/ WORK DAY LIMITATIONS**

6.3 Exceptions to the above requirements shall be requested by Contractor and be pre-approved in writing by Owner’s representative at the Director or Regional Manager level or above.

**7.0 CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS**

NONE

**8.0 PERSONAL PROTECTIVE EQUIPMENT**

8.1.2 Vegetation management Contractor Personnel are not required to use face shields in the performance of his or her Work.

8.1.4 Vegetation management Contractor Personnel shall be exempt from any work glove requirement.

**9.0 INDUSTRIAL HYGIENE**

NONE

**10.0 MISCELLANEOUS JOBSITE REQUIREMENTS**

10.5 Vegetation management Contractor Personnel shall comply with the most recent revision of the American National Standard for Arboricultural Operations – Safety Requirements (ANSI Z133) when operating mobile cranes and lifting devices as part of his or her Work.

**11.0 TOOLS**

NONE

**12.0 REPORTING REQUIREMENTS**

NONE

**13.0 OWNER JOBSITE OBSERVATIONS/AUDITS**

NONE

**14.0 CONTRACTOR JOBSITE OBSERVATIONS**

14.1 If Contractor does not have a dedicated Safety & Health Professional, then Contractor’s Operations Manager must perform and document a Job Site Observation (JSO) weekly.

**15.0 PROHIBITED FROM JOBSITE**

NONE

**16.0 VEGETATION MANAGEMENT POLICIES AND PROCEDURES**

16.1.10 In addition to the requirements in the AEP Safety and Health Supplemental Terms and Conditions and this Appendix, Contractor and Contractor Personnel shall follow AEP Forestry: Vegetation Management Goals, Procedures & Guidelines for Distribution and Transmission Line Clearance Operations in the performance of Work.

**17.0 DEFINITIONS AND ABBREVIATIONS**

NONE

## Appendix C: Generation

As part of Contractor’s obligations under the AEP Safety and Health Supplemental Terms and Conditions, Contractor and all Contractor Personnel shall follow the additional requirements set forth in this Appendix C: Generation (this “Appendix”) while performing Work for Owner’s Generation Operations. This Appendix supplements the corresponding sections as listed in the AEP Safety and Health Supplemental Terms and Conditions.

### 1.0 INTRODUCTION

- 1.6 For Mine Safety and Health Administration (MSHA) regulated facilities, Contractor shall comply with the Federal Mine Safety and Health Acts of 1977 and any revisions, amendments, and successor legislation to the extent governing and applicable to the Work. To the extent that this Contract (and particularly within the AEP Safety and Health Supplemental Terms and Conditions herein) references an OSHA definition or requirement(s) and there is an MSHA definition or requirement(s) that is reasonably comparable to such OSHA definition or requirement, then the comparable MSHA requirement shall control, if MSHA has jurisdiction over the referenced subject matter or location. To the extent that this Contract requires compliance to OSHA requirements for which there are no comparable MSHA requirements, or to the extent that this Contract imposes safety and health requirements for which there are no comparable OSHA or MSHA requirements, and which are applicable to the subject matter or location, Contractor shall comply with the strictest of: (i) the OSHA requirement; (ii) any applicable Owner requirement; or (iii) any applicable Contractor rule or procedure.

### 2.0 SAFETY & HEALTH PLANNING

- 2.2 Job Briefings:
- 2.2.1 In the preparation of the Job Briefing, Contractor shall consult applicable Job Hazard Analysis (JHA’s) that may exist for the Work.
- 2.2.1.1 Attachment: Owner’s Job Briefing Form
- 2.3 WSHP: Owner will provide Contactor with Owner’s completed Pre-Work Hazard Assessment (PWHA) which identifies hazards associated with the Work along with requirements for additional planning (i.e. direction on whether Contractor has to complete a WSHP and/or Job Hazard Analysis (JHA). Contractor shall consider the PWHA and understand that the PWHA is informational for initial planning purposes only. The PWHA does not relieve Contractor of its obligation to conduct its own hazard assessments of the Work.
- 2.3.1 Attachment: Owner’s WSHP Form
- 2.5 Additional Safety Planning Requirements:
- 2.5.1 Job Hazard Analysis (JHA)
- 2.5.1.1 If Owner requires a WSHP, Contractor shall prepare a JHA in accordance with its WSHP. Where a WSHP is not required, Contractor shall prepare a JHA for the planned Work subject to review by Owner prior to starting Work.

2.5.1.2 Owner reserves the right to require Contractor to prepare additional JHAs. Contractor shall use and update JHAs to consistently apply proper safeguards. All JHAs are subject to review by Owner.

2.5.1.3 The WSHP and JHAs shall be signed by the Work Site superintendent to ensure clear understanding of the safety and health plans at the local level.

2.5.1.4 Attachments: Owner's JHA Form

2.5.2 As an aid in performing hazard assessments, some Sites may require each Contractor Personnel to document their assessments using Owner-supplied checklists or equivalent means such as a STAR Card.

### **3.0 GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS**

3.3 The number of Contractor Personnel trained in First Aid, Cardiopulmonary Resuscitation ('CPR') and Automated External Defibrillator ('AED') will be mutually agreed upon by Owner and Contractor during the RFX process based on Work scope and crew size.

3.7 Additional training and qualification requirements:

3.7.1 For Mine Safety and Health Administration (MSHA) regulated facilities, Contractor is responsible for the cost of all MSHA Surface Certification, New Miner, and Miner Refresher Training.

3.7.2 Some Sites may require supervision to attend Owner's "Supervisors' Responsibilities and Expectations Briefing" program. If required, the program must be completed within two weeks after arrival at Owner's Site and takes approximately one hour. Owner will reimburse Contractor the cost of Contractor Personnel attending this training if required.

### **4.0 SAFETY AND HEALTH PROFESSIONAL**

4.2 Contractor shall provide an on-Site full-time Safety and Health Professional for each shift of Work in which the total of craft Contractor Personnel exceeds 40 personnel with an additional Safety and Health Professional for each additional 40 craft Contractor Personnel.

### **5.0 COMMUNICATION**

NONE

### **6.0 WORK HOUR / WORK DAY LIMITATIONS**

6.3 Exceptions to the 16 hour and 13 day rules must be approved by the Owner's Director or Plant Manager of the organization responsible for the Work.

### **7.0 CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS**

NONE

### **8.0 PERSONAL PROTECTIVE EQUIPMENT**

8.1.4 Attachment: Generation Glove & Sleeve Selection Matrix

8.1.6 Footwear: With the exception of site office buildings, Contractors personnel shall follow the footwear requirements unless owner agrees with Contractor's WSHP or JHA that justifies less or more stringent requirements.

8.2 Attachment: Arc Flash Protection Policy

**9.0 INDUSTRIAL HYGIENE**

NONE

**10.0 MISCELLANEOUS JOBSITE REQUIREMENTS**

10.4 Attachment: Barricade Tape and Flagging Guideline

10.14 Additional requirements:

10.14.1 Attachment: Clearance Permit Policy, Procedure, and Form

10.14.2 Attachment: Floor and Wall Opening Permit Procedure

10.14.3 Attachment: 15 ft. Scaffold Access

10.14.4 Attachment: C.OI-730.12.02 – Electric Lines and Equipment Clearance (PC&C)

10.14.5 Attachment: Lifting and Rigging (Plant / Organization Specific)

10.14.6 Generation Substance Abuse Program

10.14.6.1 Testing shall be performed by a third party testing facility certified by Department of Health & Human Services, Drug & Alcohol Testing Industry Association (DATIA) or the Substance Abuse Program Administrators Association (SAPAA). The analytical method for a confirmatory drug test must combine chromatographic separation and mass spectrometric identification (i.e. GC/MS, CL/MS). Alcohol testing shall be performed only by certified Breathalyzer equipment (appearing on the Department of Health and Human Resources conforming product list) and trained breath alcohol technician. All positive breath alcohol tests shall be confirmed by an Evidentiary Breath Test that provides a print out.



Drug Screening Classes	Screening Cut-Off Limit*** (ng/ml)	Confirmation Cut-Off Limit (ng/ml)
Amphetamines Methamphetamines	500*	250* 250**
MDMA MDA MDEA	500*	250* 250* 250*
Barbiturates	300	200
Benzoylcegonine (Cocaine Metabolite)	150*	100*
Cannabinoids (THC)****	50*	15*
Opiates	2000*	2000*
Codeine	2000	2000
Morphine	2000	2000
Oxycodone	100	100
Hydromorphone	300	300
Hydrocodone	300	300
6-Acetylmorphine	10	10
Phencyclidine (PCP)	25*	25*
Benzodiazepines	300	300
Methadone	300	300
Propoxyphene	300	300
Breath alcohol content	.040g/210L	.040g/210L

\* Cut-off limits established by the Department of Health and Human Services in their mandatory Guidelines for Federal Workplace Drug Testing Programs.

\*\* To be reported positive for methamphetamine, a specimen must also contain amphetamine at a concentration equal to or greater than 100ng/ml.

\*\*\* In no event will the cutoff limits set forth in this paragraph be less than the cutoff limits set forth in the Technical Guidelines adopted from time to time by the United States Department of Health and Human Services.

\*\*\*\* The Medical Review Officer will not accept assertions that a positive THC resulted from the use of hemp oil or the injection of hemp products, and therefore verify a marijuana test negative. Individuals should avoid use of such products.

10.14.6.2 For Work not covered by the Building Trades Council, Association, or Craft program terms, Owner will reimburse Contractor at its actual cost, without additional markups, predicated upon Contractor's submittal of copies of the actual invoice(s) for the testing to Owner.

10.14.6.3 If an instant drug test is requested by the Contractor and the Contractor Personnel test results are positive, the Contractor Personnel will be removed from Site until the result can be verified by laboratory analysis. If the result is confirmed positive, the Contractor Personnel will be placed on the ban list. If the result is confirmed negative, the Contractor Personnel may return to the Site. The Owner will not be responsible for back pay to the employee under these circumstances.

## 11.0 **TOOLS**

NONE

**12.0 REPORTING REQUIREMENTS**

NONE

**13.0 OWNER JOBSITE OBSERVATIONS/AUDITS**

NONE

**14.0 CONTRACTOR JOBSITE OBSERVATIONS**

14.2 For MSHA regulated facilities, MSHA Surface Certified person to perform required on shift inspection, document, and sign MSHA on shift book.

**15.0 PROHIBITED FROM JOBSITE**

NONE

**16.0 GENERATION POLICIES AND PROCEDURES**

16.1.1 Generation Culture Playbook

**17.0 DEFINITIONS AND ABBREVIATIONS**

17.13 Pre-Work Hazard Assessment (PWHA) - Owner's initial hazard assessment for the Work to be executed by Contractor that identifies anticipated hazards as best as can reasonably be determined by Owner that may require elimination or mitigation. The PWHA will be provided to Contractor and is intended to provide a basis for initial planning purposes only and Owner does not make any warrant or representation, express or implied, that the PWHA is accurate, complete, comprehensive, or all-inclusive, or that items not listed will not be present or pose no threat to Contractor Personnel safety or health.

17.14 Job Hazard Analysis (JHA) - A detailed 3-step analysis that helps eliminate and/or reduce risk. This 3 step process breaks each task down into basic job steps, identifies existing and potential hazards associated with each step and provides recommendations/procedures to eliminate, reduce or control hazards, and the option of assessing potential severity.

## Appendix D: Telecom

As part of Contractor’s obligations under the AEP Safety and Health Supplemental Terms and Conditions, Contractor and all Contractor Personnel shall follow the additional requirements set forth in this Appendix D: Telecom (this “Appendix”) while performing Work for Owner’s Telecom Operations. This Appendix supplements the corresponding sections, as listed in the AEP Safety and Health Supplemental Terms and Conditions.

### 1.0 **INTRODUCTION**

NONE

### 2.0 **SAFETY & HEALTH PLANNING**

#### 2.2 Job Briefings

2.2.1.1 General Telecom Requirements. Contractor shall complete Owner’s Job Briefing Form titled, “Job Safety & Hazard Analysis (JSHA) Construction Work Form” (i.e. Fiber Construction, Site Construction and/ or other related form specifically requested by Owner).

#### 2.3 Work Safety and Health Plan (WSHP)

2.3.1 General Telecom Requirements. Notwithstanding the foregoing in Section 2.3 of the AEP Safety and Health Supplemental Terms and Conditions, WSHP shall apply only to Telecom station Work that exceeds five (5) Business Days. Each WSHP shall, at a minimum, include information regarding the following:

- 2.3.1.1 Project Details
- 2.3.1.2 Construction / Execution Plan
- 2.3.1.3 Emergency Planning
- 2.3.1.4 Environmental Protection Plans
- 2.3.1.5 Project Safety Management
- 2.3.1.6 Task Hazard Analysis
- 2.3.1.7 Civil Work / Excavations
- 2.3.1.8 Substation / Switchyards
- 2.3.1.9 T Line Project
- 2.3.1.10 Material (Delivery / Handling / Laydown Area)
- 2.3.1.11 Equipment
- 2.3.1.12 Disciplinary Program
- 2.3.1.13 Miscellaneous

2.3.2 Contractor shall ensure that the WSHP shall be made available, and the contents communicated to all personnel, Contractor Personnel or otherwise, on Site at any time. The WSHP shall be maintained separate from other safety documentation and be kept readily available on Site.

2.3.3 All Contractor Personnel shall participate in driving the most efficient route to the nearest medical facility prior to any Work occurring on a Site. If the distance to the emergency facility is too great

and a helicopter is the most appropriate means of transportation, Contractor shall contact the service provider and have an appropriate landing zone planned.

## 2.4 Emergency Planning

2.4.1 General Telecom Requirements. Contractor shall refer to the JSHA in Section 2.2.1. above for additional information and requirements regarding emergency planning.

## 2.5 Additional Requirements

### 2.5.1 General Telecom Requirements

2.5.1.1 Contractors must have one blood borne pathogen kit per crew.

### 2.5.2 Telecom “Site Construction” Specific Requirements

2.5.2.1 Contractor shall ensure portable eye wash kits are made available for Contractor Personnel’s use.

2.5.2.2 For Drilled excavations six (6) feet or more in depth, Contractor Personnel shall be protected from falling by guardrail systems, fences, hard barricades or covers. All Contractor Personnel entering inside the guardrail system shall have and use fall protection equipment in the performance of his or her Work.

## 3.0 **GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS**

3.5.1 All Contractor Personnel shall view the transmission safety and environmental videos prior to being on a Jobsite.

## 3.7 Qualified and Non-Qualified Electrical Employee

### 3.7.1 Qualified Electrical Employee-

3.7.1.1 Owner requires that qualified electrical Contractor crew members involved in the operation, construction, maintenance, or working on or near electric power generation, control, transformation, transmission, and distribution lines and equipment will be qualified as required by OSHA in 29 CFR 1910.269 and 29 CFR 1926 Subpart V.

3.7.1.2 Owner requires that qualified electrical Contractor crew members involved in the operation, repairing, testing, verification, or exposure to or working on or near live parts energized at 50 volts or more) shall be qualified as required by OSHA 1910 Subpart S and OSHA 1926 Subpart K.

3.7.1.3 Owner defines a qualified electrical employee or “Qualified Employee” as a person having been trained and having demonstrated knowledge in the construction and operation of electrical power generation, transmission and distribution equipment involved and the associated hazards. A Qualified Employee must be trained and competent in (list not all inclusive):

3.7.1.3.1 The skills and techniques necessary to distinguish exposed live parts of electrical equipment;

- 3.7.1.3.2 The skills and techniques necessary to determine the nominal voltage of exposed live parts;
- 3.7.1.3.3 The minimum approach distances or safe working distances specified by OSHA corresponding to the voltages to which the Qualified Employee shall be exposed
- 3.7.1.3.4 Training to recognize and avoid electrical hazards;
- 3.7.1.3.5 Safety practices, including applicable emergency procedures (such as pole top
- 3.7.1.3.6 & manhole rescue, first aid/CPR, Lock Out/Tag Out), that are related to the Work, and;
- 3.7.1.3.7 The proper use of special precautionary techniques, personal protective equipment and clothing, insulating, and shielding materials, and insulated tools for working on or near exposed parts of electrical equipment.
- 3.7.1.4 Until these Qualified Employees have demonstrated proficiency in the Work practices involved, they are considered to be employees undergoing on-the-job training and must be under the direct supervision of a qualified person at the all times. Contractor crew members shall only perform Work at the level for which they are qualified.
- 3.7.1.5 At Owners request, Contractor must supply documentation concerning the types of skills assessments performed, training programs and how the Contractor shall ensure that its Qualified Employees demonstrate competencies. Contractor shall certify that each Qualified Employee has received training required by this section. Certification shall be made when the Qualified Employee has demonstrated proficiencies in the Work assigned.
- 3.7.1.6 Contractor shall maintain a list of qualified personnel able to Work near primary service, able to serve as a Qualified Observer, and able to work secondary service. Qualified list shall be available upon request from Owner during normal operation and prior to service restoration.
- 3.7.1.7 Contractor shall ensure that Qualified Employees and Subcontractor(s) Qualified Employees have the appropriate training to perform the Work.
- 3.7.1.8 Owner, at its sole discretion based on Work observations or for other reasons, may at any time withdraw its acceptance of any previously approved or completed training and require personnel to repeat training.
- 3.7.2 Non-Qualified Electrical Employee
  - 3.7.2.1 Contractor shall provide training for non-qualified electrical Contractor employees for the purpose of entering or working within electrical areas (i.e., electrical vaults, manholes, poles). Contractor shall provide training for non-qualified electrical Contractor employees who shall be working near energized lines or equipment energized at 50 volts or more (i.e., civil contractors, laborers, locators, pole treatment/inspection, etc.). All direct and indirect costs of this training are Contractor's sole responsibility.

- 3.7.2.2 Owner defines a non-qualified electrical employee or “Non-Qualified Employee” as a person who has not been trained or authorized to conduct electrical Work. A Non-Qualified Employee must, at a minimum, be trained and competent in (list not all inclusive):
- 3.7.2.2.1 Understanding of electrical hazards;
  - 3.7.2.2.2 Electric shock;
  - 3.7.2.2.3 What is safe to touch and what is not safe to touch in specific areas they shall be entering;
  - 3.7.2.2.4 Hazard Reporting;
  - 3.7.2.2.5 The maximum voltage of the area/equipment;
  - 3.7.2.2.6 The minimum approach distances for the maximum voltage within the area, and and;
  - 3.7.2.2.6 Recognition and proper use of protective equipment that shall be used to provide protection and in the Work practices necessary for performing their specific Work assignments while working near energized lines or equipment energized at 50 volts or more.
- 3.7.2.3 At Owners request, Contractor must supply documentation concerning the types of skills assessments performed, training programs and how the Contractor shall ensure that their Non-Qualified Employees demonstrate competencies. Contractor shall certify that each Non-Qualified Employee has received training required by this section. Certification shall be made when the Non-Qualified Employee has demonstrated proficiencies in the Work assigned.
- 3.7.2.4 Contactor shall ensure that Non-Qualified Employees and Subcontractor(s) Non-Qualified Employees have the appropriate training and safety instruction to perform the Work. Contractor shall also ensure that Non-qualified employees do not engage in any Work prior to completing the relevant training.

### 3.8 OPGW Personal Protective Grounding Training Class

- 3.8.1 Telecom “Fiber Construction” Specific Requirement. Contractor and on Site Contractor Personnel shall attend Optical Ground Wire (OPGW) Personal Protective Grounding Training Class training (incorporated herein by reference) prior to being on Jobsite.

## **4.0 SAFETY & HEALTH PROFESSIONAL**

- 4.2 For each project with twenty (20) or more total Contractor Personnel on-Site, Contractor shall provide a full-time, dedicated, on-site safety representative. Contractor shall provide an additional full-time, dedicated, on-Site safety representative for each additional twenty (20) Contractor Personnel present thereafter. Even if the Work requires fewer than twenty (20) total Contractor Personnel on Site, if Owner determines the nature

of the Work justifies additional safety oversight, Owner has the right to request, whereupon Contractor shall provide a full-time, dedicated, safety representative for the Work.

**5.0 COMMUNICATION**

NONE

**6.0 WORK HOUR / WORK DAY LIMITATIONS**

6.3 General Telecom Requirements. Contractor requested exceptions to Section 6.0 of the AEP Safety and Health Supplemental Terms and Conditions shall be sent to the Telecom Construction Manager.

**7.0 CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS**

NONE

**8.0 PERSONAL PROTECTIVE EQUIPMENT**

8.2 Arc Flash Policy

8.2.1 Contractor Personnel who Work on or near energized facilities and equipment shall wear arc rated clothing equal to or greater than the owner’s incident energy. Additional personal protective equipment, such as fire retardant rated face shields and balaclavas, shall be worn when employees are exposed to arc flash hazards in excess of the minimum requirements set forth in following table.

**Table 1**

<b>Minimum Head and Face Protection</b>		
<b>Equipment Required</b>	<b>Arc-Rated Faceshield with a Minimum Rating of 8 cal/cm<sup>2</sup>*</b>	<b>Arc-Rated Hood or Faceshield with Balaclava</b>
Single-phase, open air	9-12 cal/cm <sup>2</sup>	13 cal/ cm <sup>2</sup> or higher**
Three phase	5-8/ cm <sup>2</sup>	8 cal/ cm <sup>2</sup> or higher***
<p>* These ranges assume that Contractor Personnel are wearing hardhats meeting the specifications in OSHA 1910.135 or 1926.100(b)(2), as applicable.</p> <p>** The arc rating must be a minimum of 4 cal/ cm<sup>2</sup> less than the estimated incident energy, not that OSHA 1926.960(g)(5)(v) permits this type of head and face protection, with a minimum arc rating of 4 cal/ cm<sup>2</sup> less than the estimated incident energy, at any incident energy level.</p> <p>*** Note OSHA 1926.960(g)(5)(v) permits this type of head and face protection at any incident energy level.</p>		

8.2.2 Owner shall supply Contractor with appropriate system requirements based on local electrical system configuration. Contractor and Owner shall review Owner’s incident energy prior to start of Work.

- 8.2.3 All Contractor Personnel that are covered under the Safety & Health Supplemental Terms and Conditions shall dress in his or her arc rated clothing prior to arrival on Site.
- 8.2.4 In addition to the requirements as outlined by OSHA and per Owner’s policy, the requirements for Contractor Personnel to wear the protective clothing and equipment working on or near exposed, energized part(s) includes, but is not limited to the following examples of potential arc flash exposures:
  - 8.2.4.1 When working within the minimum approach distances;
  - 8.2.4.2 When determined by incident energy analysis;
  - 8.2.4.3 When rubber gloves or rubber gloves and sleeves are required;
  - 8.2.4.4 When performing hot-stick Work;
  - 8.2.4.5 When bonding or working “bare hand method;”
  - 8.2.4.6 When grounding conductors or equipment;
  - 8.2.4.7 When testing lines or equipment to be de-energized;
  - 8.2.4.8 When performing switching operations;
  - 8.2.4.9 When entering enclosed/confined spaces with energized lines or equipment;
  - 8.2.4.10 When disconnecting or connecting testing meters;
  - 8.2.4.11 When Contractor Personnel are required to physically assist with energized Work on lines or equipment where mechanical failure or human error could expose employee to a flash.
  - 8.2.4.12 When in a substation, unless labeled or identified as being different, arc flash boundary to exposed, energized parts is fifteen (15) feet. Also, specific to equipment inside a control house and unless labeled or identified as being different, arc flash boundary to exposed parts energized from 50 V to less than 300 V is three (3) feet six (6) inches.
- 8.2.5 In addition, Contractor Personnel shall comply with the following:
  - 8.2.5.1 All outer layers of clothing shall have the appropriate arc flash rating (including the upper and lower body). When a shirt is worn as the outer layer, it shall be long sleeves. Sleeves shall be rolled down and buttoned with the shirt tails tucked into the trousers. When an additional layer is required (such as, but not limited to, a coat or overalls) the outer layer shall have the appropriate arc flash rating.
  - 8.2.5.2 Arc flash rated clothing shall be worn as constructed by the manufacturer. Altering arc flash rated clothing (i.e. removing sleeves or collars, etc.) is prohibited.
  - 8.2.5.3 Clothing made from acetate, nylon, polyester, or polypropylene that is not arc flash rated shall not be worn under arc flash rated clothing or by itself while employees are exposed to arc flash hazards. Garments made from 100% natural fibers (i.e. cotton, wool) may be worn under arc flash rated clothing, but shall be free from stains or flammable products, screen printing, iron-on transfers, paint, etc.
- 8.3 General Telecom Requirements. All Contractor Personnel are required to wear flame resistant (FR) clothing under the following circumstances:



- 8.3.1 Gate to gate in a substation
- 8.3.2 Aerial construction on transmission or distribution networks
- 8.3.4 When entering a network manhole or vault
- 8.3.4 Anytime Site management requires FR clothing to be worn
- 8.3.5 High visibility reflective vest and shall be FR

**9.0 INDUSTRIAL HYGIENE**

NONE

**10.0 MISCELLANEOUS SITE REQUIREMENTS**

10.4.1 Telecom “Fiber Construction” Specific Equipment Barricading Requirements. *Distribution Line only; Equipment Barricading Policy, Aerial Devices (AEP TX ONLY)*- All aerial devices (Digger Derricks & Bucket Trucks) shall be barricaded by Contractor to prevent Contractor Personnel on ground from coming in contact with the aerial device in the event of an accidental electrical contact on any structure or pole with energized conductors. When working in areas where workers have access to the Work area directly under the boom or bucket of the aerial device, the entire Work area shall be barricaded by Contractor. When the barricaded Work area needs to be entered, the Qualified Observer, as defined below, shall confirm that all Work aloft is stopped and the aerial bucket and boom has been moved out to a safe distance from energized conductors or energized sources. Work shall only restart after Qualified Observer has confirmed that the barricaded area is clear. “Qualified Observer” as used in this Appendix means the foreman or equivalent lineman on the ground when energized Work in a bucket is being performed. The Qualified Observer,

- i) is responsible for understanding, communicating with, and watching the Work as it progresses;
- ii) shall not be assigned other duties while bucket is in the Primary Zone; and
- iii) has the authority to STOP Work if Work appears to be departing from the originally communicated plan.

10.4.2 Texas Telecom Aerial Contractor Personnel are required to:

- i) have fire extinguisher, spare Class II gloves with leather protectors, and blanket that can be kept in a bag outside the barricaded area during Mobile Operations;
- ii) use cover-ups and protective Sleeves when working above the neutral; and
- iii) ensure the required equipment is out of the bag and laid out for use when working in the Primary Zone. “Primary Zone” as used in this Section 10.4.2, means above the neutral.

10.15 Tethering

10.15.1 Telecom “Site” Specific Requirements.

10.15.1.1 Tethering Requirements for Aerial Tower Work - All tools and equipment (ex. Cameras, Cellphones, Radios) shall be tethered while in use. All Contractor Personnel shall ensure they are using manufactured tethers that meet industry standards. Tethers shall be designed for the tool and manufacturer weight limits followed. All tools and

materials that cannot reasonably be tethered shall be placed in sealable tool bags when not in use. All Contractor Personnel shall ensure that tool bags and materials are securely tied off to prevent dropped objects.

10.15.1.2 Tool Tether Inspection - All drop prevention systems shall be inspected prior to use. Excessively worn or damaged tools or materials must be immediately removed from service and replaced.

10.15.1.3 Drop Zone Protection - Contractor shall establish an agreed upon drop zone with the Jobsite AEP Representative and shall prevent entry of personnel not involved with the Work being conducted. Contractor shall police the area prior to a lift and remove all non-essential personnel to a safe location. When materials or equipment are being lifted into position that have the potential to cause injury to occupants in the control building it shall be vacated.

#### 10.16 Side Setting a Pole in Power

10.16.1 Telecom “Fiber Construction” Specific Requirement. All Contractor Personnel shall adhere to Owner’s pole installation under power lines standards dated 6/21/2018, as amended from time to time (incorporated herein by reference).

#### 10.17 Rubber Glove Policy

10.17.1 Telecom “Fiber Construction” Specific Requirements. Contractor Personnel working out of an aerial bucket shall wear rubber gloves with approved leather protectors before aerial device is un-cradled and boom lifted into air on any structure/pole with energized conductors. All conductors are considered energized unless tested and grounded on each side of Work location. When Work is required to place fiber above the neutral and working in the “Primary Zone” rubber sleeves (in AEP TX Only) are required to be used in conjunction with rubber gloves and approved leather protectors. Class 2 rubber gloves with approved leather protectors & sleeves (where required, AEP TX Only) shall be required at all structures/poles with energized conductors to 15KV. Class 3 Rubber gloves with approved leather protectors & sleeves (where required, in AEP TX Only) shall be required at all structures/poles with energized conductor voltages 15KV up to 25KV. No fiber shall be placed over any conductors over 25KV (transmission voltage). The Qualified Observer shall verify all personnel has the required rubber gloves with approved leather protectors and sleeves (in AEP TX Only) on before lifting of aerial bucket. FR clothing is required when working out of any aerial device. All rubber goods include; gloves, (sleeves and blankets in AEP TX Only) shall be inspected before each use and tested per all AEP & OSHA standards.

10.17.2 *Rubber Glove Policy for specific to (PSO & SEP), East (APCO, OHIO, KY, I&M ONLY).* Contractor Personnel working out of an aerial bucket shall wear Class 2 rubber gloves with approved leather protectors before aerial device is un-cradled and boom lifted into air on any structure/pole with energized conductors. All conductors are considered energized unless tested and grounded on each

side of Jobsite. FR clothing is required when working out of any aerial device. All rubber gloves, shall be inspected before each use and tested per all AEP & OSHA standards.

**11.0 TOOLS**

NONE

**12.0 REPORTING REQUIREMENTS**

NONE

**13.0 OWNER JOBSITE OBSERVATIONS/AUDITS**

NONE

**14.0 CONTRACTOR JOBSITE OBSERVATIONS**

NONE

**15.0 PROHIBITED FROM JOBSITE**

NONE

**16.0 TELECOM POLICIES AND PROCEDURES**

NONE

**17.0 DEFINITIONS AND ABBREVIATIONS**

17.14 Work Safety and Health Plan (WSHP): WSHP as used in this Appendix D means a structured document that details the scope of construction Work and related safety controls for management review and tradesman training.

## Appendix E: Transmission

As part of Contractor’s obligations under the AEP Safety and Health Supplemental Terms and Conditions, Contractor and all Contractor Personnel shall follow the additional requirements set forth in this Appendix E: Transmission (this “Appendix”) while performing Work for Owner’s Transmission Operations. This Appendix supplements the corresponding sections as listed in the AEP Safety and Health Supplemental Terms and Conditions.

### 1.0 INTRODUCTION

NONE

### 2.0 SAFETY & HEALTH PLANNING

#### 2.2 Job Briefings:

2.2.1.1 Contractor shall use Owner supplied Pre-Job Briefing Form located on VERO

(<https://verodms.com>).

2.3 For Work exceeding five (5) days duration, Contractor shall be required to submit a Work Safety and Health Plan (WSHP) no later than five (5) business days after the Effective Date of the Contract. WSHP shall be submitted, via email, to the Owner assigned TCR, Project Manager, Environmental Representative and Safety Representative for the Work. Failure to submit the WSHP in the time frame described herein may result in revocation of contract award. The WSHP template for use is located on VERO (<https://verodms.com>).

If Work is less than five (5) days in duration but considered to be ‘high risk’, the AEP Transmission Project Team reserves the right to require the Contractor to submit a WSHP for the project.

*Note: : ‘High Risk’ work may include, but is not limited to: Critical Lifts, Crane Activities, Pier Foundations, Demolition, Steel Erection, Personnel Hoisting, Transferring Conductor, Energized Services, Working*

2.3.1 A WSHP shall, at a minimum, include information regarding the following:

- Project Details
- Construction/Execution Plan
- Emergency Planning
- Environmental Protection Plans
- Project Safety Management
- Task Hazard Analysis
- Civil Work/Excavations
- Substation/Switchyards
- T Line Project
- Material (Delivery/Handling/Laydown Area)
- Equipment

- Disciplinary Program
  - Miscellaneous
- 2.3.2 Contractor shall ensure that the WSHP be made available and the contents communicated to all personnel on Site at any time. The WSHP shall be maintained separate from other safety documentation and be kept readily available on Site.
- 2.3.3 All Contractor Personnel shall participate in driving the most efficient route to the nearest medical facility prior to any Work occurring on a Site. If the distance to the emergency facility is too great and a helicopter is the most appropriate means of transportation, Contractor shall contact the service provider and have an appropriate landing zone planned.
- 2.5 Following review of Job Briefing, Contractor Personnel performing specific tasks shall complete a detailed Task Hazard Analysis (THA) at the physical work location that identifies task steps task steps and lists the associated hazards and mitigation controls. Daily, before any Work begins or resumes, and before changing any Work procedures or activity at any Site, Contractor shall perform a documented new THA which identifies all known and potential Work Site risks. The THA shall be either handwritten with dates and original signatures or may be produced electronically – as long as the final document bears the relevant time and date stamp with original signatures. Any duplication by any means, including photocopied, pre-filled, copied and pasted, or other means of replication of any report **shall not be allowed.**
- 2.5.1 Contractor’s assigned supervisor or lead shall review the THA with each Contractor Personnel crewmember prior to the start of each task and anytime the Work procedure changes. Additionally, the Contractor’s assigned supervisor or lead shall review the THA with each Contractor Personnel crewmember after lunch and/or after any significant break in the Work.
- Contractor’s THA shall include:
- A detailed step-by-step plan for the task to be performed, referencing any specific requirements of the associated;
  - Specific risk/hazards associated with the task on the associated project;
  - Control measures Contractor will implement in order to eliminate or control such potential risks/hazards.
- 2.5.2 Contractor shall ensure that each Contractor Personnel crewmember performing Work shall sign their name verifying that he or she understands the THA and will adhere to it.
- 2.5.3 Using Contractor Personnel that is knowledgeable with the applicable scope of Work, Contractor shall conduct a THA review with all personnel who enter the Work zone or Site. Contractor’s review shall include a scope of Work and any hazards present at the site.
- 2.5.4 Contractor shall provide easy access to the THA for all personnel and all contractors on Site at the start of the activity and upon any changes to the THA or upon any requests to review the THA. Contractor shall make THA’s available on the Site at all times.
- 2.5.5 Contractor shall immediately communicate to all personnel on Site, regardless of affiliation, any changes to the THA that occur throughout the performance of the Work.

### **3.0 GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS**

3.3 This is applicable to each crew on the jobsite. The exception is to those performing Electrical Work under 600V.

3.7 Qualified and Non-Qualified Electrical Employees

3.7.1 Qualified Electrical Employee

3.7.1.1 Owner requires that qualified electrical Contractor Personnel crew members involved in the operation, construction, maintenance, or working on or near electric power generation, control, transformation, transmission, and distribution lines and equipment will be qualified as required by OSHA in 29 CFR 1910.269 and 29CFR 1926 Subpart V.

3.7.1.2 Owner requires that qualified electrical Contractor Personnel crew members involved in the operation, repairing, testing, verification, or exposure to or working on or near live parts energized at 50 volts or more, will be qualified as required by OSHA 1910 Subpart S and OSHA 1926 Subpart K.

3.7.1.3 Owner defines a qualified electrical employee or ‘Qualified Employee’ as a person having been trained and having demonstrated knowledge in the construction and operation of electrical power generation, transmission and distribution equipment involved and the associated hazards. A Qualified Employee must be trained and competent in (list not all-inclusive):

3.7.1.3.1 The skills and techniques necessary to distinguish exposed live parts of electrical equipment;

3.7.1.3.2 The skills and techniques necessary to determine the nominal voltage of exposed live parts;

3.7.1.3.3 The minimum approach distances or safe working distances specified by OSHA corresponding to the voltages to which the Qualified Employee will be exposed;

3.7.1.3.4 Training to recognize and avoid electrical hazards;

3.7.1.3.5 Safety practices, including applicable emergency procedures (such as pole top & manhole rescue, first aid/CPR, Lock Out/Tag Out), that are related to the work, and;

3.7.1.3.6 The proper use of special precautionary techniques, personal protective equipment/clothing, insulating, and shielding materials, and insulated tools for working on or near exposed parts of electrical equipment.

3.7.1.4 Until these Qualified Employees have demonstrated proficiency in the work practices involved, they are considered to be employees undergoing on-the-job training and must be under the direct supervision of a qualified person at all times. Contractor Personnel shall only perform Work at the level for which they are qualified.

3.7.1.5 At Owners request, Contractor must supply documentation concerning the types of skills assessments performed, training programs and how the Contractor will ensure that it’s

Qualified Employees demonstrate competencies. Contractor shall certify that each Qualified Employee has received training required by this section. Certification shall be made when the Qualified Employee has demonstrated proficiencies in the Work assigned.

- 3.7.1.6 Contractor shall maintain a list of qualified personnel be able to work on or near primary, able to serve as a qualified observer and able to work secondary service. Qualified list shall be available upon request from Owner during normal operation and prior to service restoration.
- 3.7.1.7 Contractor shall ensure that its Qualified Employees and its Subcontractor(s) Qualified Employees have the appropriate training to perform the Work.
- 3.7.1.8 Owner, at its sole discretion based on Work observations or for other reasons, may at any time withdraw its acceptance of any previously approved or completed training and require Contractor Personnel to repeat training.
- 3.7.2 Non-Qualified Electrical Employee
  - 3.7.2.1 Contractor shall provide training for non-qualified electrical employees for the purpose of entering or working within electrical areas (i.e., electrical vaults, manholes, poles).
  - 3.7.2.2 Owner defines a non-qualified electrical employee or “Non-Qualified Employee” as a person who has not been trained or authorized to conduct electrical work. A Non-Qualified Employee must be trained and competent in (list not all-inclusive):
    - 3.7.2.2.1 Understanding of electrical hazards
    - 3.7.2.2.2 Electric shock;
    - 3.7.2.2.3 What is safe to touch and what is not safe to touch in specific areas they will be entering;
    - 3.7.2.2.4 Hazard Reporting
    - 3.7.2.2.5 The maximum voltage of the area/equipment;
    - 3.7.2.2.6 The minimum approach distances for the maximum voltage within the area, and;
    - 3.7.2.2.7 Recognition and proper use of protective equipment that will be used to provide protection and in the work practices necessary for performing their specific work assignments while working near energized lines or equipment energized at 50 volts or more.
  - 3.7.2.3 At Owners request, Contractor must supply documentation concerning the types of skills assessments performed, training programs and how the Contractor will ensure that their Non-Qualified Employee demonstrate competencies. Contractor shall certify that each Non-Qualified Employee has received training required by this section. Certification shall be made when the Non-Qualified Employee has demonstrated proficiencies in the Work assigned.

- 3.7.2.4 Contractor shall ensure that its Non-Qualified Employees and its Subcontractor(s) Non-qualified Employees have the appropriate training and safety instruction to perform the Work. Contractor shall also ensure that its Non-Qualified Employees and its Subcontractor(s) Non-Qualified Employees do not engage in any work prior to completing the relevant training.
- 3.8 Contractor shall submit its annual training plan to Owner for review no later than February 1 of the applicable calendar year. Contractor shall make such submission to Owner via the following link <http://aeptcs.com>. Contractor's Training plans shall, be at a minimum, include a training calendar, learning objectives for that year, and evaluation tools that will be used to measure the success of the training.
- 3.9 All Contractor Personnel required to enter an Owner energized substation or switchyard shall complete Station Entry Training prior to entry. Contractor Personnel shall, at a minimum, be trained, competent and comfortable with the skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment, determine the nominal voltage of exposed live parts, and the minimum approach distances corresponding to the voltage to which the Contractor Personnel will be exposed. Contractor shall maintain a record of this training and shall make such records available to Owner upon Owner's request.
- 3.10 Contractor Personnel entering an energized station Site who are not station entry qualified, per OSHA standards, shall be accompanied by and under the direct supervision of a qualified supervisor. If the qualified supervisor leaves the station Site where Work is being performed; all affected Contractor Personnel shall also leave the Site.
- 4.0 SAFETY & HEALTH PROFESSIONAL**
- 4.2 For each project with twenty (20) or more total Contractor Personnel on-Site, Contractor shall provide a full-time, dedicated, on-site safety representative. Contractor shall provide an additional full-time, dedicated, on-Site safety representative for each additional twenty (20) Contractor Personnel present thereafter. Even if the Work requires fewer than twenty (20) total Contractor Personnel on Site, if Owner determines the nature of the Work justifies additional safety oversight, Owner has the right to request, whereupon Contractor shall provide a full-time, dedicated, safety representative for the Work.
- 5.0 COMMUNICATION**
- NONE
- 6.0 WORK HOUR/WORK DAY LIMITATIONS**
- 6.3 Exceptions to work hour and workday limitation shall be requested by the Contractor and be pre-approved in writing by the Owner's Construction Manager and Project Manager.
- 7.0 CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS**
- NONE



## 8.0 PERSONAL PROTECTIVE EQUIPMENT

8.1.4.1 Work gloves appropriate for the potential hazards of the job tasks. *Note: Jersey gloves are not permitted to be worn as the only means of protection.*

### 8.2 Arc Flash Policy

8.2.1 Contractor Personnel who work on or near energized facilities and equipment shall wear arc rated clothing equal to or greater than the owner's incident energy. Additional personal protective equipment, such as fire retardant rated face shields and balaclavas, shall be worn when Contractor Personnel are exposed to arc flash hazards in excess of the minimum requirements set forth in following table (Table 1).

Table 1

Minimum Head and Face Protection		
Equipment Required	Arc-Rated Faceshield with a Minimum Rating of 8 cal/cm <sup>2</sup> *	Arc-Rated Hood or Faceshield with Balaclava
Single-phase, open air	9 – 12 cal/cm <sup>2</sup>	13 cal/cm <sup>2</sup> or higher**
Three phase	5 – 8 cal/cm <sup>2</sup>	9 cal/cm <sup>2</sup> or higher***

\*These ranges assume that employees are wearing hardhats meeting the specifications in 1910.135 or 1926.100(b)(2), as applicable.

\*\*The arc rating must be a minimum of 4 cal/cm<sup>2</sup> less than the estimated incident energy; note that 1926.960(g)(5)(v) permits this type of head and face protection, with a minimum arc rating of 4 cal/cm<sup>2</sup> less than the estimated incident energy, at any incident energy level.

\*\*\*Note 1926.960(g)(5)(v) permits this type of head and face protection at any incident energy level.

8.2.2 Owner shall supply Contractor with appropriate system requirements based on local electrical system configuration. Contractor and Owner shall review owner's incident energy prior to start of Work.

8.2.3 All Contractor Personnel that are covered under these terms shall dress in his or her arc rated clothing prior to arrival on Site.

8.2.4 In addition to the requirements as outlined by OSHA, and per Owner's policy, the requirements for Contractor Personnel to wear the protective clothing and equipment working on or near exposed, energized part(s) includes, but is not limited to the following examples of potential arc flash exposures:

8.2.4.1 When working within the minimum approach distances;

8.2.4.2 When determined by incident energy analysis;

8.2.4.3 When rubber gloves or rubber gloves and sleeves are required;

- 8.2.4.4 When performing hot-stick work;
  - 8.2.4.5 When bonding or working “bare hand method”;
  - 8.2.4.6 When grounding conductors or equipment;
  - 8.2.4.7 When testing lines or equipment to be de-energized;
  - 8.2.4.8 When performing switching operations;
  - 8.2.4.9 When entering enclosed/confined spaces with energized lines or equipment;
  - 8.2.4.10 When disconnecting or connecting testing meters;
  - 8.2.4.11 When Contractor Personnel is required to physically assist with energized Work on lines or equipment where mechanical failure or human error could expose employee to a flash.
  - 8.2.4.12 When in a substation, unless labeled or identified differently, the arc flash boundary to exposed, energized parts is fifteen feet (15'). Contractor further agrees that specific to equipment inside a control house and unless labeled or identified differently, the arc flash boundary to exposed parts energized from fifty volts (50V) to less than three hundred volts (300V) is three foot, six inches (3'6").
- 8.2.5 In addition, Contractor shall ensure that Contractor Personnel comply with the following:
- 8.2.5.1 All outer layers of clothing shall have the appropriate arc flash rating (including the upper and lower body). When a shirt is worn as the outer layer, it shall be long sleeves. Sleeves shall be rolled down and buttoned with the shirt tails tucked into the trousers. When an additional layer is required (such as, but not limited to, a coat or overalls) the outer layer shall have the appropriate arc flash rating.
  - 8.2.5.2 Arc flash rated clothing shall be worn as constructed by the manufacturer. Altering arc flash rated clothing (i.e. removing sleeves or collars, etc.) is prohibited.
  - 8.2.5.3 Clothing made from acetate, nylon, polyester, or polypropylene that is not arc flash rated shall not be worn under arc flash rated clothing or by itself while employees are exposed to arc flash hazards. Garments made from 100% natural fibers (i.e. cotton, wool) may be worn under arc flash rated clothing.
- 8.2.6 Contractor agrees that any Contractor Personnel, who may be called upon to work on or near exposed, energized part(s) shall either wear the appropriate arc-rated clothing or have them readily available on Site at all times.
- 8.3.1 The outermost layer of clothing on the upper body shall be ‘High Visibility and Reflective’.

## **9.0 INDUSTRIAL HYGIENE**

NONE

## **10.0 MISCELLANEOUS JOBSITE REQUIREMENTS**

- 10.1.1 When excavating inside energized stations, Contractor shall secure a written approval from Owner prior to using any mechanical devices to perform such excavation inside an energized substation. Contractor shall consider Non-destructive excavation methods (i.e. hydro-vac, hand dig, etc.) for

initial use in energized stations to determine location of potential utilities. Upon review, on an individual Site basis, Owner may require non-destructive excavation be used, or may approve the use of mechanical excavation methods.

- 10.4.1 Contractor shall ensure that all excavations are barricaded.
- 10.4.2 Contractor shall define Work areas and drive paths of substations and switchyards with barricades to delineate safe distances to structures, equipment, fixed objects, etc.
- 10.4.3 Aerial devices shall be barricaded to prevent workers on the ground from falling objects or touching the aerial device in the event of an accidental contact with energized conductors. The barricaded needs to be entered the observer shall confirm that all work aloft is stopped and that the bucket, work platform, or boom has been moved out to a safe distance from nearby energized conductors or sources. Work will only restart after the observer has confirmed that the barricaded area is clear. area shall also be extended beyond any temporary ground rod or anchor. When the barricaded area
  - 10.4.3.1 Aerial devices shall be grounded when in use. Grounding shall be applied to a system ground conductor such as station equipment ground, structure ground, or a grounded structure. Where such previously mentioned grounding sources are not available, a remote temporary ground rod or an anchor shall be used. When a temporary ground rod is used, it is to be driven into the ground for its entire length, if possible, but never less than two feet in the ground to provide the best ground contact. Also, the ground rod or anchor shall be away from the immediate work area to reduce the risk of step potential and be barricaded.
  - 10.4.3.2 Equipment with a boom, mast, bucket, bed, etc. shall be stowed and fully cradled before moving.
  - 10.4.3.3 Before beginning equipment operations, the Contractor shall identify the Work zone to determine if any part of the equipment, boom, load line or load (including rigging and lifting accessories), if operated up to the equipment's maximum working radius in the work zone, could encroach the trigger distance to energized lines or equipment. The trigger distance for non-qualified electrical workers is defined as twenty feet (20') for less than 345kV and fifty feet (50') for 345kV and greater. For qualified electrical workers these distances are defined as fifteen feet (15') for less than 345kV and thirty feet (30') for 345kV and greater. If the trigger distance to energized lines or equipment is encroached, the Contractor shall:
    - 10.4.3.3.1 Conduct a documented planning meeting with the operator and the other workers who will be in the area of the equipment or load to review the location of the energized lines and/or equipment. The planning meeting shall address the steps and provisions that will be implemented to prevent encroachment, including delineated work zone, positioning of equipment, voltage with applicable minimum approach distance and available

engineering controls (i.e. proximity alarms, range limiting devices, insulating protective material, barricades, etc.)

10.4.3.3.2 Assign dedicated qualified observer(s) whose sole responsibility is to watch the separation between the conductor and the equipment, load line and load (including rigging and lifting accessories), ensure that the applicable minimum approach distance is not breached through communication with the operator, and warn all persons involved in the work of impending dangers.

10.4.3.3.3 Erect and maintain an elevated warning line, barricade or line of signs, in view of the operator, equipped with flags or similar high-visibility marking at the minimum approach distance.

10.4.3.4 Backing motor vehicles should be avoided wherever possible, such as by taking pull through opportunities. If backing cannot be avoided Contractor Personnel should back upon arrival. A second Contractor Personnel, if present, shall be used as a spotter while backing.

10.4.3.5 Refer to <http://aeptcs.com> for additional information regarding Section 18.0 Mobile Equipment Requirements.

10.15 HOUSEKEEPING – Contractor shall keep all trash in appropriate containers and shall dispose of it in a proper and timely manner. Contractor shall not store materials within the working space around energized lines or equipment.

10.16 CABLE VERIFICATION – Immediately prior to cutting any control cable, Contractor Personnel shall have a second person verify that it is the proper cable and that it is de-energized.

10.17 GUARD STRUCTURES – All hotline crossings and all road crossing shall be protected by the use of a guard structure. Guard structures (including equipment used as guard structures) shall be installed prior to disconnecting the conductor and shall remain in place until the conductor is clipped in.

10.18 PLACEMENT OF GROUNDS – The location of all grounds on Owner’s transmission lines and stations shall be tracked and documented by Contractor. Grounds shall be installed and removed maintaining minimum approach distance. Grounds shall be inspected prior to each use. All Grounds (each cable) shall be flagged.

10.19 WARNING SIGNS - Warning signs shall be installed at locations where overhead lines have been identified. Warning signs shall be visible and considered for all directions of travel, including site ingress and egress. Warning signs shall be no less than 36" x 36" and placed at appropriate height to draw attention. Bilingual warning signs shall be posted whenever prudent.

## 11.0 **TOOLS**

11.4 Hose safety whip checks shall be utilized on all pneumatic air hose assemblies.

**12.0 REPORTING REQUIREMENTS**

NONE

**13.0 OWNER JOBSITE OBSERVATIONS/AUDITS**

NONE

**14.0 CONTRACTOR JOBSITE OBSERVATIONS**

14.1.1 If Work exceeds two weeks in duration, a Contractor safety professional shall perform and document at least one project safety observation report on each Site no less than once per month.

**15.0 PROHIBITED FROM JOBSITE**

NONE

**16.0 TRANSMISSION POLICIES AND PROCEDURES**

NONE

**17.0 DEFINITIONS AND ABBREVIATIONS**

NONE

## **Appendix F: Workplace Services**

As part of Contractor's obligations under the AEP Safety and Health Supplemental Terms and Conditions, Contractor and all Contractor Personnel shall follow the additional requirements set forth in this Appendix F: Workplace Services (this "Appendix") while performing Work for Owner's Workplace Services Business Operations at Owner's facilities. This Appendix supplements the corresponding sections as listed in the AEP Safety and Health Supplemental Terms and Conditions.

The AEP Safety and Health Supplemental Terms and Conditions and this Appendix will remain in effect for all High Risk Work regardless of timing. On Real Estate and Workplace Services projects where a Certificate of Occupancy, Temporary Certificate of Occupancy, or similar documentation from an Owner's Representative is granted, the Director of Real Estate and Workplace Services or appropriate Manager of the organization responsible for the Work may relax some of these requirements by designating the changes in writing prior to implementation.

### **1.0 INTRODUCTION**

NONE

### **2.0 SAFETY & HEALTH PLANNING**

#### **2.2 Job Briefings:**

2.2.1.1 Attachment: Owner's Job Briefing Form

2.3 For Work exceeding five (5) days duration, Contractor may be required to submit a Work Safety and Health Plan (WSHP) per the RFP no later than five (5) business days after the Effective Date of the Contract. The WSHP shall be submitted to the Owner's Representative via email. Failure to submit the WSHP in the timeframe described herein may result in revocation of contract award. If Work is less than five (5) days in duration but considered to be High Risk, Owner reserves the right to require the Contractor to submit a WSHP for the project. Contractor shall ensure that the WSHP shall be made available, and the contents communicated to all Contractor Personnel on Site at any time. The WSHP shall be maintained separate from other safety documentation and be kept readily available on Site.

2.3.1 Attachment: Owner's WSHP Form

### **3.0 GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS**

NONE

### **4.0 SAFETY AND HEALTH PROFESSIONAL**

4.2 Contractor shall provide an on-site full-time Safety and Health Professional for each shift of Work in which the total of craft Contractor Personnel exceeds 40 personnel with an additional Safety and Health Professional for each additional 40 personnel.

**5.0 COMMUNICATION**

NONE

**6.0 WORK HOUR / WORK DAY LIMITATIONS**

6.3 Exceptions to the 16 hour and 13 day rules must be approved by the Director of Real Estate and Workplace Services or appropriate Manager of the organization responsible for the Work.

**7.0 CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS**

NONE

**8.0 PERSONAL PROTECTIVE EQUIPMENT**

8.1.6 Footwear: With the exception of project Site office buildings, Contractor Personnel shall follow the footwear requirements unless Owner agrees with Contractor's PPE Assessment that justifies less or more stringent requirements.

**9.0 INDUSTRIAL HYGIENE**

NONE

**10.0 MISCELLANEOUS JOBSITE REQUIREMENTS**

NONE

**11.0 TOOLS**

NONE

**12.0 REPORTING REQUIREMENTS**

NONE

**13.0 OWNER JOBSITE OBSERVATIONS/AUDITS**

NONE

**14.0 CONTRACTOR JOBSITE OBSERVATIONS**

NONE

**15.0 PROHIBITED FROM JOBSITE**

NONE

**16.0 WORKPLACE SERVICES POLICIES AND PROCEDURES**

NONE

**17.0 DEFINITIONS AND ABBREVIATIONS**

NONE

## Appendix G: AEP Energy Supply

As part of Contractor’s obligations under the AEP Safety and Health Supplemental Terms and Conditions, Contractor and all Contractor Personnel shall follow the amended language, clarifications and additional requirements set forth in this Appendix G: AEP Energy Supply Clarifications and Additional Requirements (this “Appendix”) while performing Work for Owner’s Energy Supply projects – inclusive of AEP Energy, AEP Energy Partners, AEP OnSite Partners, and AEP Renewables. This Appendix supplements the corresponding sections as listed in the AEP Safety and Health Supplemental Terms and Conditions dated October 1, 2019.

### 1.0 INTRODUCTION

Amended language:

- 1.2 These safety and health requirements shall be used in conjunction with the applicable AEP General Terms and Conditions for Work performed across the AEP System. These requirements reflect Owner’s minimum expectations regarding safety and health practices and may exceed the requirements of federal, state, and local regulatory agencies. In the event of a conflict between or among the safety and health practices provided herein and any federal, state or local requirements, the higher standard or greater requirement for Contractor shall prevail. By entering into the Contract, Contractor agrees that Contractor shall perform all Work in accordance with these safety and health requirements.

Additional requirement:

- 1.8 In the event any reference herein, or in the policies or documents referred to herein, identifies an obligation or responsibility of AEP site staff, AEP personnel, or such other related reference associated with an AEP representative (collectively, “AEP Representative”), such reference shall not transfer or modify the Contractor’s obligations for Work to such AEP Representative if Contractor has agreed to such obligation or responsibility pursuant to a Contract between Contractor and Owner.

### 2.0 SAFETY & HEALTH PLANNING

Amended language:

- 2.2 Job Briefing: Prior to the commencement of Work and before any changes are made in procedures or activities, ~~and prior to resuming Work after any significant breaks (i.e. lunch).~~ Contractor shall perform a Job Briefing and complete a written Job Briefing Form (pursuant to requirements set forth by OSHA). When returning to Work after a significant break (e.g., lunch), Contractor Personnel shall review the Job Briefing Form and modify it to reflect any significant changes affecting the safety of Contractor Personnel.

Amended language:

- 2.2.1.1 Unless Contractor’s Job Briefing Forms are approved in writing by Owner Representative prior to the start of Work, Contractor shall use Owner supplied Job Briefing Form available on VERO (<https://verodms.com>) in the applicable Business Unit appendix.



Clarification:

- 2.3 Owner will notify Contractor if a Work Safety and Health Plan (WSHP) is required. Contractor will use Owner's WSHP form (available on VERO at <https://verodms.com>) and provide a complete WSHP to Owner prior to start of Work.

Additional requirement:

- 2.3.1 Owner will provide Contractor with Owner's completed Pre-Work Jobsite Information Summary (PJIS) which identifies characteristics, conditions and design information of plant installations that are related to the safety of the Work, along with requirements for additional pre-Work planning (e.g., direction on whether Contractor must complete a WSHP and/or a Job Hazard Analysis (JHA)). Contractor shall consider the PJIS and understand that the PJIS is informational for initial planning purposes only. The PJIS does not relieve Contractor of its obligation to conduct its own hazard assessment of the Work.

Additional requirement:

- 2.5 Job Hazard Analysis (JHA)
- 2.5.1 If Owner requires a WSHP, Contractor shall prepare a JHA in accordance with its WSHP. Where a WSHP is not required, Contractor shall prepare a JHA for the planned Work subject to review by Owner prior to starting Work.
- 2.5.2 Owner reserves the right to require Contractor to prepare additional JHAs. Contractor shall use and update JHAs to consistently apply proper safeguards. All JHAs are subject to review by Owner.

**3.0 GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS**Amended language:

- 3.2.1 All Contractor Personnel who are performing High Risk Work on Owner Jobsites shall successfully complete, at a minimum, the OSHA 10-Hour for General Industry or Construction Training, OSHA Electric Transmission and Distribution (ET&D) Partnership 10-Hour Training, or have specific written approval from Owner's ~~Corporate Business Unit~~ Safety and Health Designee ~~Director~~ and Business Unit Operations Manager (AEP Grade 10 or above) allowing equivalent training(s) to be accepted in lieu of OSHA training.

Clarification:

- 3.3 The number of Contractor Personnel trained in First Aid, Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED) will be mutually agreed upon by Owner and Contractor prior to beginning Work and will be based on Work scope and crew size.

Amended language:

- 3.5 Prior to entering Owner's Jobsite, all Contractor Personnel shall complete the AEP onboarding requirements, which may vary by Business Unit. This training takes approximately two (2) hours. All Contractor Personnel shall refresh such training on an annual basis ~~prior to March 31st~~.

Additional requirement:

3.7 Contractor is responsible for providing qualified and capable personnel to perform the Work covered by the Contract and ensuring that Contractor Personnel only perform Work at the level for which they are qualified. Where federal, state and/or local standards require the contractor to train employees in the safety and health aspects of their jobs or limit certain job assignments to employees who are “certified,” “competent,” or “qualified,” Contractor shall ensure Contractor Personnel have the appropriate training and safety instruction to meet applicable requirements. At Owner’s request, Contractor must supply documentation including, but not limited to, training records, training programs, and/or skills assessments demonstrating competency and proficiency to safely perform Work, as required.

#### **4.0 SAFETY AND HEALTH PROFESSIONAL**

Clarification:

4.2 Contractor shall provide an on-site full-time Jobsite Safety and Health Professional for each shift of Work in which the total of Contractor Personnel exceeds 25 personnel. An additional Safety and Health Professional is required when the total Contractor Personnel exceeds 75 personnel and for each additional 50 Contractor Personnel thereafter, or as described in the Contract.

#### **5.0 COMMUNICATION**

NONE

#### **6.0 WORK HOUR / WORK DAY LIMITATIONS**

Clarification:

6.3 Exceptions to the 16-hour and 13-day rules must be approved by the Owner’s Business Unit Safety & Health Designee or Plant Manager of the Business Unit contracting for the Work.

#### **7.0 CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS**

Amended language:

7.2 Contractor shall only use AEP approved contractors (found in VERO) as Subcontractors to perform medium or high risk Work. To initiate the process to utilize a Subcontractor that is not currently qualified by Owner in VERO, the Contractor shall have the Subcontractor join VERO and obtain an approved qualification status prior to any Subcontractor Work. Any exceptions to this must be approved in writing by Owner’s ~~Corporate~~ Business Unit Safety and Health ~~Designee Director~~ Designee Director and Business Unit Operations Manager (AEP Grade 10 or above) prior to the start of Subcontractor Work.

#### **8.0 PERSONAL PROTECTIVE EQUIPMENT**

Amended language:

8.1 Contractor Personnel shall wear, at a minimum, the following PPE while on any Jobsite, unless directed otherwise in the Business Unit Appendices:

Amended language:

- 8.1.3 Hardhats that meet the specifications of ANSI Z89.1, Class E. A chinstrap is required when working at heights.

Clarification:

- 8.1.4 Contractor Personnel shall wear protective gloves as appropriate for the potential hazards of the Work task.

Additional requirement:

- 8.1.8 When climbing wind turbines, the following additional PPE is required:
- 8.1.8.1 Headlamp (for lowlight conditions)
  - 8.1.8.2 Full body harness with dorsal and sternal d-rings
  - 8.1.8.3 Double-legged shock absorbing lanyards capable of arresting a free fall of up to six feet (6'). When connecting to an anchorage point above the dorsal d-ring is not possible (such as when working on top of the nacelle), lanyards must be capable of arresting a free fall of up to twelve feet (12').
  - 8.1.8.4 Cable sleeve compatible with vertical ladder safety system
  - 8.1.8.5 Tool tethers/lanyards
  - 8.1.8.6 Rescue kits
  - 8.1.8.7 Suspension trauma relief loops/straps
- 8.1.9 When climbing wind turbines, the following additional PPE is recommend:
- 8.1.9.1 Lanyard keepers integrated into full body harness
  - 8.1.9.2 Work positioning d-rings at the hip/side of full body harness

Amended language:

- 8.2 Contractor shall review arc flash potential ~~with Owner's Representative~~ to determine the appropriate PPE.

Additional requirement:

- 8.2.1 Contractor shall comply with AEP's Arc Flash Protection Policy, available on VERO (<https://verodms.com>).
- 8.2.2 The requirements for Contractor Personnel to wear the protective clothing and equipment working on or near exposed, energized part(s) includes, but is not limited to the following examples of potential arc flash exposures:
- 8.2.2.1 When working within the minimum approach distances;
  - 8.2.2.2 When determined by incident energy analysis;
  - 8.2.2.3 When rubber gloves or rubber gloves and sleeves are required;
  - 8.2.2.4 When performing hot-stick work;
  - 8.2.2.5 When bonding or working "bare hand method";
  - 8.2.2.6 When grounding conductors or equipment;
  - 8.2.2.7 When testing lines or equipment to be de-energized;
  - 8.2.2.8 When performing switching operations;
  - 8.2.2.9 When entering enclosed/confined spaces with energized lines or equipment;
  - 8.2.2.10 When disconnecting or connecting testing meters;

8.2.2.11 When Contractor Personnel is required to physically assist with energized Work on lines or equipment where mechanical failure or human error could expose employee to a flash.

8.2.2.12 When in a substation, unless labeled or identified differently, the arc flash boundary to exposed, energized parts is fifteen feet (15'). Contractor further agrees that specific to equipment inside a control house and, unless labeled or identified differently, the arc flash boundary to exposed parts energized from fifty volts (50V) to less than three hundred volts (300V) is three foot, six inches (3'6").

8.2.3 In addition, Contractor shall ensure that Contractor Personnel comply with the following:

8.2.3.1 All outer layers of clothing shall have the appropriate arc flash rating (including the upper and lower body). When a shirt is worn as the outer layer, it shall be long sleeves. Sleeves shall be rolled down and buttoned with the shirt tails tucked into the trousers. When an additional layer is required (such as, but not limited to, a coat or overalls) the outer layer shall have the appropriate arc flash rating.

8.2.3.2 Arc flash rated clothing shall be worn as constructed by the manufacturer. Altering arc flash rated clothing (i.e. removing sleeves or collars, etc.) is prohibited.

8.2.3.3 Clothing made from acetate, nylon, polyester, or polypropylene that is not arc flash rated shall not be worn under arc flash rated clothing or by itself while employees are exposed to arc flash hazards. Garments made from 100% natural fibers (i.e. cotton, wool) may be worn under arc flash rated clothing.

Additional requirement:

8.4 Owner may require the outermost layer of clothing on the upper body be high visibility and reflective.

**9.0 INDUSTRIAL HYGIENE**

Amended language:

9.1.3 Owner requires regulated areas for all Work involving potential exposure to hexavalent chromium regardless of the type of Work conducted (General Industry or Construction). Contractor shall provide Owner's competent person for potential hexavalent chromium exposure shall be consulted an analysis regarding of the appropriate size, location and demarcation of the regulated area for review.

Amended language:

9.2.1 Structural steel and equipment throughout Owner's facilities and/or the Jobsite may have been coated with lead/cadmium based materials including galvanizing. Contractor shall treat all surfaces as containing lead/cadmium unless tested otherwise prior to performing any grinding, welding, sanding, heating, sandblasting or similar activity. Owner requires that any coating containing lead at a level of 0.05% (500 ppm) or greater be treated as a lead-containing coating.

Amended language:

9.2.4 Contractor shall collect all removed lead/cadmium bearing paint and contaminated materials used for the removal of lead/cadmium bearing paint. These materials shall be placed in Contractor supplied packaging ~~meeting the applicable US Department of Transportation requirements for the~~

~~material, labeled and disposed of per applicable local, state and federal regulations unless specified otherwise in the Contract and properly labeled and stored per Owner instructions.~~

Amended language:

9.4.2 Contractor shall have procedures for proper labeling, storing, and handling of hazardous chemicals and hazardous wastes in a safe and secure manner meeting all applicable local, state and federal regulatory requirements. These procedures shall be available to the Owner for review prior to the start of Work.

**10.0 MISCELLANEOUS JOBSITE REQUIREMENTS**

Amended language:

10.1 When performing excavation Work, Contractor shall comply with Owner's excavation policy, including permits. All excavations must be barricaded.

Amended language:

10.8 Upon entry or exit of a substation, Contractor shall ~~notify the appropriate Dispatch Authority~~ report their presence to the employee-in-charge.

Amended language:

10.11 Unless Contractor's Welding, Cutting, and Brazing policy is approved in writing by Owner's ~~Corporate~~ Business Unit Safety and Health ~~Designee Director~~ and Business Unit Operations Manager (AEP Grade 10 or above) prior to the start of Work, Contractor shall comply with Owner's Welding, Cutting, and Brazing policy.

10.12 Unless Contractor's Attentive Driving policy is approved in writing by Owner's ~~Corporate~~ Business Unit Safety and Health ~~Designee Director~~ and Business Unit Operations Manager (AEP Grade 10 or above) prior to the start of Work, Contractor shall follow Owner's Attentive Driving Policy while performing Work for Owner.

Additional Requirements:

10.15 Substance Abuse Program: All Contractor Personnel shall have passed drug and alcohol screening tests, meeting the following requirements, within the previous 12 months of beginning Work at the Jobsite. Testing for the drugs indicated below shall be performed by a third party testing facility certified by Department of Health & Human Services, Drug & Alcohol Testing Industry Association (DATIA) or the Substance Abuse Program Administrators Association (SAPAA). The analytical method for a confirmatory drug test must combine chromatographic separation and mass spectrometric identification (i.e. GC/MS, CL/MS). Alcohol testing shall be performed only by certified Breathalyzer equipment (appearing on the Department of Health and Human Resources conforming product list) and trained breath alcohol technician. All positive breath alcohol tests shall be confirmed by an Evidentiary Breath Test that provides a print out.

<b>Drug Screening Classes</b>	<b>Screening Cut-Off Limit*** (ng/ml)</b>	<b>Confirmation Cut-Off Limit (ng/ml)</b>
Amphetamines Methamphetamines	500*	250* 250**
MDMA MDA MDEA	500*	250* 250* 250*
Barbiturates	300	200
Benzoylcegonine (Cocaine Metabolite)	150*	100*
Cannabinoids (THC)****	50*	15*
Opiates	2000*	2000*
Codeine	2000	2000
Morphine	2000	2000
Oxycodone	100	100
Hydromorphone	300	300
Hydrocodone	300	300
6-Acetylmorphine	10	10
Phencyclidine (PCP)	25*	25*
Benzodiazepines	300	300
Methadone	300	300
Propoxyphene	300	300
Breath alcohol content	.040g/210L	.040g/210L

\* Cut-off limits established by the Department of Health and Human Services in their mandatory Guidelines for Federal Workplace Drug Testing Programs.

\*\* To be reported positive for methamphetamine, a specimen must also contain amphetamine at a concentration equal to or greater than 100ng/ml.

\*\*\* In no event will the cutoff limits set forth in this paragraph be less than the cutoff limits set forth in the Technical Guidelines adopted from time to time by the United States Department of Health and Human Services.

\*\*\*\* The Medical Review Officer will not accept assertions that a positive THC resulted from the use of CBD products, hemp oil or the injection of hemp products, and therefore verify a marijuana test negative.

10.15.1 If an instant drug test is requested by the Contractor and the Contractor Personnel test results are positive, the Contractor Personnel will be removed from the Jobsite until the result can be verified by laboratory analysis. If the result is confirmed positive, the Contractor Personnel will be prohibited from performing work on all AEP owned properties. If the result is confirmed negative, the Contractor Personnel may return to the Jobsite. The Owner will not be responsible for any back pay to the employee.

10.15.2 Contractor shall implement a substance abuse prevention program throughout the duration of the Work. The program shall be provided to Owner for review at least 30 days prior to beginning Work, or within the timeframe described in the Contract.

#### 10.16 Critical Lifts

10.16.1 When performing Work requiring critical lifts, Contractor shall comply with Owner's critical lift policy, including permits. Contractor may use its critical lift policy with prior review and written approval by Owner. To be considered, Contractor must submit its critical lift policy to Owner at least sixty (60) days in advance of critical lift activities.

- 10.16.2 All critical lift plans must be submitted to Owner for review at least forty-eight (48) hours in advance of any critical lift.
- 10.17 Wind Energy Facility Specific Requirements
- 10.17.1 Contractor access to wind turbines is limited to authorized Contractor Personnel only.
- 10.17.2. Turbine doors must be closed and locked when unattended.
- 10.17.3 Lone work by Contractor Personnel in wind turbines is prohibited.
- 10.17.4 Contractor's plan for working at heights shall comply with ANSI/ASSE Z359.2, *Minimum Requirements for a Managed Fall Protection Program*.
- 10.17.4.1 While working at heights in wind turbines, at least two Contractor Personnel performing Work at the turbine shall be trained in assisted rescue and self-rescue techniques. All rescue training must be specific to the rescue equipment provided by Contractor for such use.
- 10.17.4.2 Rescue equipment shall not be used for hoisting.
- 10.17.4.3 While performing Work in a commissioned turbine, an Automated External Defibrillator ('AED') and fire extinguisher must be present (i.e., in the nacelle when performing Work at heights) and Contractor Personnel must be trained in their use.
- 10.17.5 Contractor shall have a Dropped Object Prevention Program
- 10.17.5.1 Pants and shirt pockets shall be empty while climbing. All tools and equipment must be carried in a topped container designed to prevent spillage when inverted.
- 10.17.5.2 Radios must be holstered and tethered.
- 10.17.5.3 Appropriately rated tethers or lanyards must be used to secure tooling while it is in use and/or while working next to open hatches, unprotected openings, when Work is being performed from the ladder, or while working on top of the nacelle.
- 10.17.5.4 Magnetic trays must be used when working with small metallic parts.
- 10.17.5.5 All hatches must remain closed when not in use.
- 10.17.5.6 All materials stored in wind turbines must be kept in containers that close and be kept at least four feet from any opening.
- 10.17.5.7 A drop/fall zone shall be established and delineated commensurate with Work scope, but in no case less than 50 feet from the base of the turbine.
- 10.17.5.8 When hoisting, containers shall be rated for the intended load, topped and designed to prevent spillage when inverted.
- 10.17.6 Contractor shall have a program to protect Contract Personnel from the hazards of falling ice from turbines, cranes, and other elevated equipment.
- 10.18 Energy Storage Facility Specific Requirements
- 10.18.1 Contractor access to energy storage enclosures shall be limited to authorized Contractor Personnel only.
- 10.18.2 Contractor shall have a program to train personnel on the significance of different alarms and the corresponding action for personnel to take in case of an alarm while onsite.

## 10.19 Substation Facility Specific Requirements

10.19.1 All mobile and aerial equipment requires the use of a spotter when in use in the substation.

## 11.0 **TOOLS**

### Amended language:

11.2 ~~Use of pocket knives or non-safety utility knives is prohibited, shall not be used for cutting/stripping unless it is impossible to utilize another tool designed for that task. Not having the proper cutting tool available on site is not an excuse for using knives.~~ Cutting tools other than a knife (i.e., wire cutters/strippers, side cutters, snips and other cutting tools) shall always be used first. A safety utility knife with an automatic retracting blade or other means of blade protection would be the second selection. ~~The use of a company issued pocket knife or nonsafety utility knife is only permitted if a safety utility knife or other cutting tool cannot be used.~~ The second option ~~and third option (knives)~~ can only be used in combination with wearing appropriate hand protection, as determined by the Job Briefing.

### Additional requirements:

11.4 Grinders shall not be used without machine guarding. Guarding must be installed per manufacturer requirements and appropriate for wheel type.

11.5 Hose safety whip checks shall be utilized on all pneumatic air hose assemblies.

## 12.0 **REPORTING REQUIREMENTS**

### Amended language:

12.1 Safety Event Reporting: Contractor shall report to Owner all Contractor Personnel safety-related events in accordance with any Jobsite or Work specific contractual arrangements in place between Contractor and Owner or the applicable AEP General Terms and Conditions, and the requirements listed below. Safety-related events include but are not limited to the following:

[Replace existing list with the following:]

12.1.1 Near Miss events

12.1.2 First aid (beyond minor)

12.1.3 OSHA recordable injuries

12.1.4 Fatalities

12.1.5 Arc flash event (those not reported in 12.1.1)

12.1.6 Vehicle incidents, preventable and non-preventable (Owner and Contractor to agree upon reporting threshold)

12.1.7 Spills (any release that makes contact with the earth, or exceeds the local reporting requirements for environmental spills, or any spills that threatens navigable waterways or streams.)

12.1.8 Utility strikes

12.1.9 Energy control errors (Lock Out Tag Out (LOTO), Clearance, and Switching and Tagging)

12.1.10 Visits by a safety regulatory agency

12.1.11 Citations from a safety regulatory agency

12.1.12 Property damage incidents (Owner and Contractor to agree on reporting threshold)



12.1.13 Equipment incidents (Owner and Contractor to agree on reporting threshold)

Amended language:

12.5 Monthly Reporting: Contractors with a scope of Work greater than or equal to 30 calendar days shall submit monthly reports to Owner that include at a minimum, the following:

[Replace existing list with the following]

12.5.1 Monthly Work hours for all Contractor Personnel

12.5.2 Number and description of monthly OSHA recordable incidents and fatalities, including lost time and restricted days

12.5.3 OSHA recordable incident-rate and OSHA lost time injury rate (year to date and project to date)

12.5.4 Summary of monthly first aid incidents (number, category)

12.5.5 Summary of monthly Near Miss events (number, category)

12.5.6 Summary of monthly vehicle and property damage incidents (number, category)

12.5.7 Summary of monthly Job Site Observations performed per Section 14.0 (number, type, open/resolved)

12.5.8 Description of monthly safety awareness initiatives/campaigns

12.5.9 Description of Contractor's plans to address upcoming Work hazards

**13.0 OWNER JOBSITE OBSERVATIONS/AUDITS**

NONE

**14.0 CONTRACTOR JOBSITE OBSERVATIONS**

NONE

**15.0 PROHIBITED FROM JOBSITE**

Additional requirement:

15.10 Pets are prohibited on all Owner Jobsites.

**16.0 AEP POLICIES AND PROCEDURES**

NONE

**17.0 DEFINITIONS AND ABBREVIATIONS**

Amended language:

17.2 **AEP General Terms and Conditions** means the applicable AEP general terms and conditions referenced in the Contract which may be one of the following: AEP General Terms for Labor and Services; AEP General Terms and Conditions for Engineering, Procurement and Construction Work; Electric Transmission Texas (ETT) General Terms and Conditions for Labor and Services; OVEC/IKEC General Terms for Labor and Services; or OVEC/IKEC General Terms and Conditions for Engineering, Procurement and Construction

Work (as amended from time to time). If no separate AEP general terms and conditions are referenced, the capitalized term shall mean the applicable terms and conditions of the Contract.

- 17.3 **Business Unit (BU)** means for the purposes of these AEP Safety and Health Supplemental Terms and Conditions, a division of AEP that is responsible for providing a product line or service area to the affiliated companies of the American Electric Power System separately identified so each line or service area is considered a business [For purposes of these AEP Safety and Health Supplemental Terms and Conditions: AEP Distribution, AEP Vegetation Management, AEP Generation, AEP Telecom, AEP Transmission, ~~and~~ AEP Workplace Services, and AEP Energy Supply].

Additional definitions:

- 17.14 **Business Unit Safety and Health Designee** means the AEP Representative designated with authority over safety and health for Work performed for the applicable Business Unit.
- 17.15 **Contract** means the written agreement creating obligations intended to be enforceable by law by and between AEP and Contractor
- 17.16 **Contractor** means the entity as specified in the contracting instrument creating the Contract.
- 17.17 **EMT** means Emergency Medical Technician.
- 17.18 **EMS** means Emergency Medical Services.
- 17.19 **Job Briefing** means a discussion of a completed Job Briefing Form led by Contractor Personnel in charge of the job or task that includes all employees on site affected by the job or task scope. At a minimum, the discussion must include: hazards associated with the job, Work procedures involved, special precautions, energy source controls and personal protective equipment requirements.
- 17.20 **Job Hazard Analysis (JHA)** means a detailed three step analysis that helps eliminate and/or reduce risk. This three-step process breaks each task down into basic job steps, identifies existing and potential hazards associated with each step and provides recommendations/procedures to eliminate, reduce or control hazards, and the option of assessing potential severity.
- 17.21 **Job Site Observation (JSO)** means a formalized procedure to observe a job task for the purpose of identifying and reinforcing safe behaviors, and eliminating unsafe behaviors. Job Site Observations are not inspections or audits.
- 17.22 **Near Miss** means an incident in which no property was damaged and no personal injury was sustained, but where, given a slight shift in time or position, damage or injury easily could have occurred.
- 17.23 **Owner** means any one or all of the companies of the American Electric Power System as may be specified in the Contract.
- 17.23 **Pre-Work Jobsite Information Summary (PJIS)** means a summary of characteristics, conditions and design information related to the safety of the Work, along with requirements for additional pre-Work planning (e.g., direction on whether Contractor must complete a WSHP and/or a Job Hazard Analysis (JHA)). The PJIS will be provided to Contractor and is intended to provide a basis for initial planning purposes only and Owner does not make any warrant or representation, express or implied, that the PJIS is accurate,

complete, comprehensive, or all-inclusive, or that items not listed will not be present or pose no threat to Contractor Personnel safety or health.

- 17.24 **Work Safety and Health Plan (WSHP)** means WSHP is a structured document that details the scope of Work and related safety controls for Owner review.