ELECTRICAL RISK ASSESSMENT FORM - SUBCONTRACTORS

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| 1. **GENERAL**
 |
| Date:Company:Qualified Personnel: | Equipment:Location:Normal operating conditions exist per NFPA 70E 130.1(A)(4)? [ ]  Y [ ]  N  | System Voltage:[ ]  Movable circuit part[ ]  Fixed Circuit PartArc Flash label present on equipment? [ ]  Y [ ]  N Date on Label: \_\_\_\_\_\_\_\_\_\_ |

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| 1. **TASK**
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| [ ]  Reading a panel meter while operating a meter switch[ ]  Normal operation of a circuit breaker (CB), switch, contactor, or starter[ ]  Work on energized electrical conductors and circuit parts, including voltage testing[ ]  Voltage testing on individual battery cells or individual multi-cell units[ ]  Removal or installation of CBs or switches[ ]  Removal or installation of covers for equipment such as wireways, junction boxes, and cable trays that does not expose bare energized electrical conductors and circuit parts[ ]  Removal of bolted covers (to expose bare energized electrical conductors and circuit parts). [ ]  Removal of battery intercell connector covers[ ]  Opening hinged door(s) or cover(s) (to expose bare energized electrical conductors and circuit parts)[ ]  Perform infrared thermography and other noncontact inspections outside the restricted approach boundary. This activity does not include opening of doors or covers.[ ]  Application of temporary protective grounding equipment after voltage test[ ]  Work on control circuits with exposed energized electrical conductors and circuit parts, 120 volts or below without any other exposed energized equipment over 120 V including opening of hinged covers to gain access[ ]  Work on control circuits with exposed energized electrical conductors and circuit parts, greater than 120 V[ ]  Insertion or removal of individual starter buckets from motor control center[ ]  Insertion or removal (racking) of CBs or starters from cubicles, doors open or closed[ ]  Insertion or removal of plug-in devices into or from busways[ ]  Insulated cable examination with no manipulation of cable[ ]  Insulated cable examination with manipulation of cable[ ]  Work on exposed energized electrical conductors and circuit parts of equipment directly supplied by a panel board or motor control center[ ]  Insertion and removal of revenue meters [ ]  For dc systems, insertion or removal of individual cells or multi-cell units of a battery system in an enclosure or open rack.[ ]  For dc systems, maintenance on a single cell of a battery system or multi-cell units in an open rack[ ]  For dc systems, work on exposed energized electrical conductors and circuit parts of utilization equipment directly supplied by a dc source[ ]  Insertion or removal (racking) of CBs from cubicles[ ]  Insertion or removal (racking) of ground and test device[ ]  Insertion or removal (racking) of voltage transformers on or off the bus[ ]  Opening voltage transformer or control power transformer compartments[ ]  Outdoor disconnect switch operation (hook stick operated) at 1 kV through 15 kV[ ]  Outdoor disconnect switch operation (gang-operated, from grade) at 1 kV through 15 Kv**EXPLAIN TASK / ADDITIONAL DETAIL**:  |
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| 1. **POTENTAL ELECTRICAL HAZARDS**
 |
| *Shock hazard* [ ]  Yes [ ]  No *Likelihood of an arc flash incident per NFPA 70E Table 130.5 (C)* [ ]  Yes [ ]  No Potential for an arc blast [ ]  Yes [ ]  No  |
| 1. **POTENTIAL RISKS**
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| **Potential Severity of Injury or Damage to Health** |
| [ ]  Irreversible — trauma, death[ ]  Permanent — skeletal damage, blindness, hearing loss, third degree burns [ ]  Reversible — minor impact, hearing damage, minor laceration, bruises, first/second degree burns |
| **Likelihood of Hazardous Event** | **Likelihood of Avoiding Injury** |
| [ ]  Very high[ ]  Likely[ ]  Possible | [ ]  Impossible[ ]  Probable |
| **Protective Measures**  |
| [ ]  Physical barrier at \_\_\_\_\_ feet (based on boundary information below)[ ]  Signage[ ]  SOPs | [ ]  Training [ ]  PPE (see below)[ ]  Other Controls, Explain  |

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| 1. **SHOCK APPROACH BOUNDARIES**

*From NFPA 70E Table 130.4(D)(a) or (b)* |
| Restricted Approach Boundary (feet) = | Limited Approach Boundary (feet) = |

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| 1. **ARC FLASH BOUNDARY**
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| Method for determining Arch Flash Boundary:[ ]  Arc Flash PPE Categories Method *(from NFPA 70E Table 130.7(C)(15)(a) or (b))*[ ]  Incident Energy Analysis Method Incident energy= \_\_\_\_\_\_\_\_\_\_ cal/cm2 | Arc Flash Boundary (feet) = |

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| 1. **ARC FLASH PPE REQUIREMENTS**

*From NFPA 70E Table 130.7(C)(15)(c) or 130.5(G)* |
| PPE Category = \_\_\_\_\_\_\_\_\_\_ and/or PPE Calorie Rating = \_\_\_\_\_\_\_\_\_\_Arc flash PPE conforms to NFPA 70E 130.7(14)? [ ]  Yes [ ]  No |
| Protective Clothing and PPE: | Protective Equipment: |

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| 1. **REQUEST PERMIT**
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| Is incident energy > 40 cal/cm2 [ ]  Yes [ ]  No Is system voltage > 480V? [ ]  Yes [ ]  NoDoes work include more than voltage verification, troubleshooting, or thermal imaging? [ ]  Yes [ ]  No*Is equipment operating condition abnormal?* [ ]  Yes [ ]  No*If any answer is yes, then work must be completed under an approved Energized Electrical Work Permit*  |

**Note: The ERA must be completed by a Qualified Person per NFPA 70E.**

**Workers must review this ERA prior to starting work.**

**The ERA must be available at the job site during work activities.**