**ELECTRICAL SAFETY PROGRAM**

**Prepared for:**

**(INSERT YOUR AGENCY HERE)**

Reviewed by (print name): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_

**TABLE OF CONTENTS**

PURPOSE 3

DEFINITIONS 3

RESPONSIBLE PARTIES 3

HAZARD CONTROLS 3

PERSONAL PROTECTIV EQUIPMENT 4

ELECTRICAL WORK 5

TRAINING 5

APPENDIX A: QUALIFIED AND AFFECTED EMPLOYEES 7

# PURPOSE

In accordance with OSHA 29 CFR 1910.331-335, “Electrical Safety Related Work Practices and NFPA 70E, “Standard for Electrical Safety in the Workplace”, the **INSERT AGENCY’S NAME** has established this Electrical Safety Plan.

# DEFINITIONS

***De-energized*** – Free from any electrical connection to a source of potential difference and from electrical charge; not having a potential different from that of earth. (De-energized does not describe an electrically safe work condition, e.g., a circuit that has been disconnected but not controlled and verified.)

***Electrical Hazard*** – A dangerous condition such that contact or equipment failure can result in electric shock, arc-flash burn, thermal burn, or blast.

***Electrically Safe Work Condition*** – A state in which the conductor or circuit part to be worked on or near has been disconnected from energized parts, locked/tagged out (or equivalent) in accordance with established standards, tested to ensure the absence of voltage, and grounded if determined necessary.

***Energized*** - Electrically connected to or having a source of voltage, or electrically charged to have a potential significantly different from that of earth in the vicinity.

***Qualified Employee*** – An employee who is trained and authorized to perform work on electrical equipment and components.

***Unqualified Employee*** – An employee who has not been trained or authorized to perform electrical work.

# RESPONSIBLE PARTIES

The **INSERT AGENCY’S NAME** is responsible for the following, but not limited to:

* Providing Training;
* Correcting all electrical safety hazards; and
* Ensuring all new electrical equipment and components comply with codes and regulations.

Employees are responsible for the following, but not limited to:

* Reporting electrical safety hazards;
* Ensure they do not work on electrical equipment without proper training; and
* Inspecting equipment prior to using it.

# HAZARD CONTROLS

The following control methods will be used to prevent occurrence of electricity-related incidents:

Engineering Controls:

* All electrical distribution panels. Breakers, disconnects, switches and junction boxes must be completely closed;
* Water-tight enclosures must be used if any of these components could possibly be exposed to moisture;
* Conduits must be supported for their entire length, and non-electrical attachments to conduits are prohibited; and
* Non-rigid electrical cords must have strain relief whenever necessary.

Administrative Controls:

* Only trained and authorized employees may repair or service electrical equipment;
* Contractors must be licensed to perform electrical work;
* Physical barriers must be used to prevent unauthorized persons from entering areas where new installations or repair of electrical components or equipment is being performed;
* Only authorized employees may enter electrical distribution rooms;
* All electrical control devices must be labeled properly; and
* No employee of the Authority is to work on energized electrical circuits.

Work Practice Controls:

* Employees covered by this policy must wear electrically rated safety boots;
* Non-conductive gloves will be available for testing of residual power;
* Electrical-rated matting shall be placed in front of all electricity-distribution panels.

# PERSONAL PROTECTIV EQUIPMENT

The **INSERT AGENCY’S NAME** will provide all personal protective equipment (PPE) (the PPE will be in accordance with NFPA 70E-2015 edition) for employees that are required for their jobs.

Employees are required to observe the following procedures for PPE use:

* Qualified employees, who are working in areas (restricted approach boundary – see NFPA 70E-2015, 130.4 (shock) and 130.5 (arc flash)) where electrical hazards are present shall utilize PPE.
* NFPA 70E-2015, Table 130.7(C)(14) shall be utilized to determine and select the needed arc flash PPE. It may not be required for this task. If arc flash PPE is required, Table 130.7(C)(15)(A)(b) shall be consulted to determine which PPE category applies.
* Qualified employees then shall consult Table 130.7(C)(16) to determine which specific PPE is to be worn.
* PPE used to protect against shock shall be worn per NFPA 70E-2015, table 130.4(D)(a). Insulated gloves and protectors shall be worn per 29 CFR 1910.137, after matching the voltage hazard to the proper class of PPE.
* It is the policy of the Authority to implement the requirements of NFPA 70E – 2015 with respect to electrical PPE. The qualified person is to rely on training to assess the situation at hand and determine after consultation with NFPA 70E – 2015 and 29 CFR 1910.137 the required PPE for the job. If it is not available, qualified employees are to notify their supervisor and obtain it prior to commencing.

# ELECTRICAL WORK

No employee is authorized by the **INSERT AGENCY’S NAME** to work on any live equipment, vehicle, circuit, etc.

All circuit(s) must be tested using appropriate electrical testing instruments and electrical PPE in accordance with NFPA 70E – 2015 edition to verify that all circuit(s) are in a zero energy state, prior to performing any work.

Lockout Tagout procedures must follow OSHA 29 CFR 1910.333(b)(2), which can be found in attachment 1.

# TRAINING

***Qualified Employees:***

Training for qualified employees shall consist of, but not limited to:

* Equipment procedures;
* The training requirements outlined in OSHA standard 29 CFR 1910.331 – 1910.335;
* The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment;
* The skills and techniques necessary to determine the nominal voltage of exposed live parts; and
* The clearance distance specified in 1910.33(3) and the corresponding voltages to which the qualified person is exposed to.

\*Note\*

* For the purposes of 1910.331 through 1910.335, a person must have the training required by paragraph (b)(3) of this section in order to be considered a qualified person; and
* Qualified persons whose work on energized equipment involves either direct contact by means of tools or materials must also have the training needed to meet 1910.33 (C)(2).

***Unqualified Employees:***

Employees that are not qualified or authorized to perform work on electrical equipment and components will be trained in general electrical safety precautions for the purpose of hazard awareness.

Unqualified employees adhere to the following:

* Do not conduct any electrical repairs;
* Report all electrical hazards to immediate supervisor;
* Do not operate equipment if you believe there is an electrical hazard;
* Do not allow electrical equipment or components to contract water;
* Remember that even low-voltage can be physically harmful;
* Do not use cords or plugs that are missing the ‘ground’ prong; and
* Do not overload electrical receptacles.

# APPENDIX A: QUALIFIED AND AFFECTED EMPLOYEES

|  |  |
| --- | --- |
| **Qualified Employees** | **Job Title** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| **Affected Employees** | **Job Title** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |