

ESA Electrical Safe Work Practices Scope of Work and Deliverables

ESA can provide an Electrical Safe Work Practices Document which will provide the written basis/policy for safe electrical work practices. It will also serve as the formal documentation to meet OSHA and NFPA 70E compliance for safe work practice policy and procedures.

The document will cover all aspects of electrical safety including responsibilities, safe work practices, administration, contractor requirements, etc. A sample outline is provided below for review. This outline can be tailored to fit your company's requirements.

Electrical Safe Work Practices Standard

I. SCOPE

II. DEFINITIONS

III. RESPONSIBILITIES

- A. Location Management
- B. Task Supervisor or Person-in-Charge
- C. Employee
- D. Escort
- E. Contractors and Visitors

IV. SAFE WORK PRACTICES

- A. Live Parts Work Policy
- B. Working On Or Near Energized Equipment
- C. Equipment/Line Status
- D. De-energizing lines and equipment for Employee Protection
- E. Power System Switching Procedures
- F. Job Briefings
- G. Personal Protective Equipment
- H. Tools
- I. Work Zone
- J. Lockout/Tagout
- K. Grounding
- L. Mobile Equipment Operation
- M. Mobile Equipment Grounding
- N. Infrared Testing
- O. Cleaning Insulators/Bushings
- P. Line-Clearance Tree Trimming

V. DESIGN AND OPERATION

- A. Design and Construction
- B. Operation and Maintenance

VI. INSPECTIONS AND TESTING OF TOOLS AND EQUIPMENT

- A. Testing of Insulating Rubber Products
- B. Live-Line Tools
- C. Insulated Tools
- D. Mechanized Equipment
- E. Records

VII. EMPLOYEE TRAINING

- A. Personnel Qualifications
- B. Qualified Employee

- C. Authorized Employee
- D. Lockout/Tagout Training
- E. Assessment
- F. Training Type
- G. Retraining
- H. Personnel Certification and Record Keeping
- I. New and Temporary Employee Training Requirements

VIII. ADMINISTRATIVE CONTROL

- A. Location Management
- B. Contractors
- C. Escorting Non-Qualified and Non-Authorized Personnel
- D. Power System and Electrical Installation Security (Locking)
- E. Electrical System Safety for Operations
- F. Training Requirements
- G. Documentation
- H. Incident Investigation
- I. Periodic Electrical Safety Reviews

IX. REFERENCES

- A. ANSI (American National Standards Institute)
- B. ASTM (American Society for Testing and Materials)
Standard on Electrical Protective Equipment for Workers, 7th Edition
- C. CFR (Code of Federal Regulations)
- D. IEEE (Institute of Electrical and Electronic Engineers)
- E. NESC (National Electrical Safety Code)
- F. NFPA (National Fire Protection Association)
- G. Applicable State and Local Codes

X. APPENDICES

Appendix A – Tables and Figures

Appendix B – Limits of Approach

- A. Preparation for Approach
- B. Unqualified Persons, Safe Approach Distance
- C. Qualified Persons, Safe Approach Distance
- D. To cross the prohibited approach boundary and enter the prohibited space is considered the same as making contact with live parts, the qualified person shall:

Appendix C – Flame Resistant Clothing Recommendations

Appendix D – Sample Calculation of Flash Protection Boundary D_c ,

Arc in Open Air E_{ma} , and Arc in Cubic Box E_{mb}

- A. Sample Calculation - Flash Protection Boundary D_c
(just curable burn distance)
- B. Sample Calculation - Arc in Open Air E_{ma}
- C. Sample Calculation - Arc in Cubic Box E_{mb}

Appendix E – Fall Protection

- A. Fall Protection

Appendix F – Electrical Operations

- A. General
- B. Switching Procedures
- C. Request for Outage
- D. Clearance for Work

Appendix G – Work Area Protection

- A. Introduction

- B. Equipment
- C. Flagperson

Appendix H – Job Briefing Checklist

Appendix I – Substation Project Installation Safety Assessment Checklist

Appendix J – Substation Inspection Checklist

Appendix K – Electrical Control Room Inspection Checklist

Appendix L – Test Procedure for Daily Inspection of Rubber Gloves

Appendix M – Grounding Cable and Jumper Ratings

Appendix N – Equipotential Grounding Techniques

Appendix O – Principles of Electrical Safety

Development of the document will include a kick-off meeting with your company's management, engineering, and maintenance personnel to review current company safety procedures and policies, and to develop direction for the Electrical Safe Work Practices Document.

We will develop the document and provide a draft copy for review and comment. ESA will then work with your company's management, engineering, and maintenance personnel to review comments and modify the document before issuing the final.

Please contact ESA you would like to discuss development of your customized Electrical Safe Work Practices Document.

Please contact ESA for pricing.

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