

Electrical Safety Audit

Creating a Roadmap for a Safer Workplace



The Martin Technical Electrical Safety Inspection Report focuses on installations and safe work practices at your site (s) based on the National Electrical Code, NFPA 70E, NFPA 70B, and OSHA 1910.331-335. This report will be conducted by a specialist who has a strong understanding of these various standards/laws and who is field experienced in electrical plant environments. It is important to point out that that these standards and laws can, based on the official making the inspection, be subjective to interpretation and site situation. Additionally, installations, practices and procedures changed,

modified or altered following the inspection. Thus, this inspection report will be a foundation in working towards a safer workplace for your employees.

The report will focus on the following categories:

- NEC Compliance
- OSHA / NFPA 70E Arc Flash & Electrical Safety Compliance
- Assured Equipment Grounding
- Ground Fault Circuit Interruption Protection
- Lock Out / Tag Out
- Qualified Electrical Worker Training

OBJECTIVES

- Identify and provide corrective actions for potentially hazardous electrical situations
- Determine electrical system & electrical safety compliance with:
 - National Electrical Code
 - NFPA 70E
 - NFPA 70B
 - OSHA 1910.331-335
- Review and provide corrective actions for electrical safety work processes
- Review and provide corrective actions for electrical maintenance tools
- Identify potential cost savings and efficiencies through modifications of electrical system

WORK PROCESS

Each site visit will entail an inspection of equipment and installations to identify items from the service point of your buildings down through the feeder circuits to various branch circuits. Inspectors will be taking pictures.

Martin Technical will also examine and assess your personnel and workplace procedures. Thus, we will require all current record keeping on all electrical maintenance personnel down to the maintenance shops, their tools, meters, PPE, workplace standards, and maintenance record keeping and PM procedures.

The Inspection Report will itemize observations in which CFR or NFPA standards are not being met and the corrective action. The criticality of the items will be ranked on a subjective scale of 1 to 5.



SERVICES NOT INCLUDED

We exclude the following related to all of the studies identified above:

1. Engineering design and system modifications
2. Electrical construction or electrical fieldwork of any kind.
3. Testing, calibrating, adjusting and setting of electrical equipment and/or over-current protective devices.

DELIVERABLES

- Illustrated Recommendations and Corrective Actions Report with Critical Corrective Action Ranking

Sample Report Information

Company Location: Lancaster, PA
Item #: 8
Building: Mobile Maintenance Facility
Location: West side near dock door
Maintenance Hazard Rating: 3

Observation / Description of concern:

Electrical service equipment mounted in "line of sight" of passing heavy machinery without protection.



Electrical Equipment Exposed



Note Heavy Equipment & Building Damage

Substantiation:

In 29 CFR 1910.303(g)(1)(vii)(B), OSHA states that outdoor electric equipment shall be installed in suitable enclosures and shall be protected from accidental contact by unauthorized personnel, or by vehicular traffic. 1910.303(g)(2)(ii) requires that electric equipment that is likely to be exposed to physical damage must have enclosures or guards to be arranged and of such strength as to prevent such damage. The NEC requires in subsection 110.12(B) that there be no damaged parts that may adversely affect safe operation or mechanical strength or are broken.



An example of a typical bollard

Recommended corrective action:

Place substantial bollards in front of and outside of the working space of the equipment or relocate equipment to a place not in line of sight of heavy equipment.

About Us



Martin Technical provides practical services for making facilities better, safer and more efficient. Our expert staff combines their real world work experiences of the past with today's technologies and best practices to provide our customers with the solutions and knowledge they need to maximize their operations and keep safe doing it. And because all our experts have in-field experience, we understand the difference between theory and application and are able to translate today's complex problems into simple solutions that can be implemented tomorrow.

About Our Customers

Our customers represent a broad spectrum, big and small, and we have provided services for virtually every type of company, plant or facility, including:

- Manufacturing Plants
- Schools & Universities
- Data & Service Centers
- Airports
- Government & Military
- Hospitals
- R&D Facilities
- Public Buildings
- Energy & Utility Plants
- Water & Waste Water
- Hotel & Hospitality
- Commercial Buildings

Liability / Insurance

We carry the following insurance policies:

- General Liability - \$2 Million per occurrence / \$4 Million aggregate policy
- Professional Liability - \$1 Million policy

In addition, any outside engineers used on projects are required to have their own individual professional liability and general liability insurance.



Products & Services

We specialize in making plants and facilities better, safer and more efficient by providing the following services and products:

Electrical Studies & Testing

- Arc Flash Analysis & Labeling
- Short Circuit Study
- Protective Device & Coordination Study
- Power Quality Audit
- Motor Load Studies
- Infrared Inspection

Electrical Safety

- Electrical Safety Program Development
- Electrical Safety Audit
- Electrical Safety Training
- Qualified Person / Electrical Worker Certification
- Lockout / Tagout Programs
- Infrared Inspections

Energy Management

- Energy Audits
- Boiler, Compressor & HVAC Audits
- Energy Management Training

Electrical Maintenance Training

- Electrical maintenance training topics are available through our training partners.