

MIOSHA Fact Sheet



Electrocutions: Prevention and Protection Awareness

MIOSHA has identified and conducted program related investigations for electrocution fatalities in general industry and construction. With the proper training and equipment, **electrocutions can be prevented!**

Recent Electrocutions in Michigan

Construction Electrocutions

- **8/19/21**, two employees were working from an aerial lift when one came into contact with a high voltage power line. **The 27-year-old millwright** was taken to the hospital where he passed away two days later.
- **5/23/19**, a **19-year-old general laborer** was moving/guiding a metal truss, which came into contact with an energized overhead power line during the building of a hoop barn.
- **5/31/19**, employees were performing construction activities in a substation. A **53-year-old journeyman electrician** was working in an uninsulated aerial work platform removing insulated grounding jumper cables when he was electrocuted.
- **6/28/19**, a **23-year-old general laborer** was working on an aerial work platform converting overhead florescent light fixtures into overhead LED fixtures. Attempts were made to contact him but were unsuccessful. The aerial work platform was lowered where the general laborer was found unresponsive and emergency services were called. It appears he was electrocuted.

General Industry Electrocutions

- **9/5/18**, a **49-year-old machine operator** returned to work after lunch and later two coworkers found him kneeling by a machine. A coworker touched him and thought he felt a shock when he touched the victim. The worker fell to the ground and was found not to be breathing.

- **10/5/18**, a crew was getting set to replace an electrical pole. While removing the new pole from their truck, they contacted the overhead 7200-volt electrical line with the truck boom, killing a **51-year-old journeyman line worker**.
- **7/16/18**, a **44-year-old machine adjuster** was adding ink to a printing machine. He was found slumped over on top of an electrical and pneumatic pump, unresponsive, and had what appeared to be electrical burns on his left and right arms, chest, and abdomen.
- **4/30/18**, a **55-year-old truck driver** was dumping a load of topsoil with a dump truck. The driver raised the dump-bed of the truck and contacted power lines pulling the primary pole down. After leaving the cab of the dump-truck, the driver's hand contacted something that was energized.

While nothing can ever replace a life lost, one way to honor these workers is to thoroughly investigate the circumstances surrounding the incident and learn from the findings to prevent similar tragedies.

For more in-depth information regarding these accidents as learning opportunities to protect health and safety, visit [Michigan Fatality Assessment and Control Evaluation](#) (MIFACE).

Electrocution Violations

The MIOSH Act requires employers to provide "a workplace free of recognized hazards that are causing or are likely to cause death or serious physical harm to the employees". The purpose of MIOSHA safety and health rules is to set minimum requirements and provide guidelines for identifying and correcting hazards contributing to injuries, illnesses, and fatalities.

Below are some of the rule violations cited by the Construction Safety and Health Division (CSHD) and the General Industry Safety and Health Division (GISHD) as a result of investigating electrocutions.

Construction Violations

- **Construction Standard [Part 1, General Rules](#)**, Rule 114 (1) – Develop and implement an Accident Prevention Program. Rule 115 (4) – Maintain a minimum of 10 feet from energized electrical equipment.
- **Construction Standard [Part 10, Cranes and Derricks](#)**, Rule 1926.1408(a)(2) --Deenergize and ground or 20 foot clearance or Table A clearance; up to a 50 foot clearance.
- **Construction Standard [Part 8, Handling and Storage of Materials](#)**, Rule 822. (1) 50 kV or less-10 feet plus length of material stored
- **Construction Standard [Part 16, Power Transmission and Distribution](#)**, 1926.960 *WORKING ON OR NEAR EXPOSED ENERGIZED* 1926.960(b)(1) Qualified employees only. 1926.960(c)(1)(i) The employer shall establish minimum approach distances no less than the distances computed by Table V-2 for ac systems or Table V-7 for dc systems.
- **Construction Standard [Part 17, Electrical Installations](#)**, Rule 1725 (10) – A portable electric tool used in a wet atmosphere or environment shall be protected by an approved ground-fault interrupter. Rule 1724 (3) – No lock out or protection from energized electrical equipment.
- **Construction Standard [Part 32, Aerial Work Platforms](#)**, Rule 3209 (1) – Aerial work platform not operated with safe distances from energized power lines.

General Industry Violations

- **General Industry Standard [Part 39, Design Safety Standards for Electrical Systems](#)**, Rule 1910.304(g)(5) The path to ground from circuits, equipment, and enclosures shall be permanent, continuous, and effective.

- **General Industry Standard [Part 86, Electric Power Generation, Transmission, and Distribution](#)**, Rule 1910.269(p)(4)(ii) A designated employee other than the equipment operator shall observe the approach distance. Rule 1910.269(p)(4)(iii)(C) Each employee shall be protected from hazards that could arise from mechanical equipment contact with energized lines or equipment.

Preventing Electrocutions

MIOSHA urges proactive attention to safety and health in all workplaces to eliminate these preventable deaths. Employers must apply effective worker safeguards at every jobsite.

The MIOSHA Consultation Education and Training (CET) Division has consultants available to provide employers with assistance in creating safety and health programs, developing accident prevention programs, and implementing long-term safety and health solutions. Employers can call the CET at 517-284-7720 for consultation services, training opportunities, and other safety and health needs, or visit our website at www.michigan.gov/cet.

The MIOSHA Training Institute (MTI) has several courses. All MTI course information is online at www.michigan.gov/mti.

Information is also available from **The National Institute for Occupational Safety and Health (NIOSH)**, www.cdc.gov/niosh and the **Federal Occupational Safety and Health Administration (OSHA)**, www.osha.gov.

For information on MIOSHA standards, contact the CSHD at 517-284-7680, GISHD at 517-284-7750, or visit our website, www.michigan.gov/mioshastandards.

LEO is an equal opportunity employer/program.



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