

**Case 521. 51-year-old journeyman lineman was electrocuted when the boom of a digger derrick contacted an energized 7200-volt power line.**

A 51-year-old male journeyman lineman was electrocuted when the boom of a digger derrick contacted an energized 7200-volt power line. The work crew consisted of two workers. Worker 1 was the line worker in charge and was operating the controls of the digger derrick, which was not grounded; the ground wire for the digger derrick was rolled up on the truck. The decedent was working from the ground. He was not wearing personal protective equipment. The crew was in the process of unloading a new power pole from the truck. The truck was “leaning” toward the power lines and the pole being replaced was “leaning” toward the road. The boom of the digger derrick contacted the non-covered, non-insulated energized power line while unloading the new power pole from the truck. The decedent reached for and grabbed the chains on the rack on the back of the truck while the boom was in contact with the power line. He became a path to ground for the electricity. Emergency response was initiated by Worker 1. The decedent was transported to a local hospital where he died.

MIOSHA General Industry Safety and Health Division issued the following Serious citations to the employer at the conclusion of its investigation.

**Serious:** GI PART 86, ELECTRIC POWER GENERATION TRANSMISSION AND DISTRIBUTION

- 1910.269(p)(4)(i): Mechanical equipment shall be operated so that the minimum approach distances of table R-6 through Table R-10 are maintained from exposed energized lines and equipment. However, the insulated portion of an aerial lift operated by a qualified employee in the lift is exempt from this requirement.

The boom on the digger derrick made contact with a 7200-volt primary line while attempting to take a power pole off the truck that was located at a job site at the end of *Road, City, MI. (MIFACE removed the incident location from the citation)*

- 1910.269(p)(4)(ii): A designated employee other than the equipment operator shall observe the approach distance to exposed lines and equipment and give timely warnings before the minimum approach distance required by paragraph (p)(4)(i) is reached, unless the employer can demonstrate that the operator can accurately determine that the minimum approach distance is being maintained.

The employee that was working as a spotter, was removing chains off the back of the digger derrick, when it made contact with a 7200-volt primary line while attempting to take a power pole off the truck that was located at a job site at the end of *Road, City, MI. (MIFACE removed the incident location from the citation)*

- 1910.269(p)(4)(III)(A): The energized lines exposed to contact shall be covered with insulating protective material that will withstand the type of contact that might be made during the operation.

The unprotected, 7200-volt primary line, was not covered with insulating protective material before attempting to take a power pole off the truck that was located at a job site at the end of *Road, City, MI. (MIFACE removed the incident location from the citation)*

- 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. The measures used shall ensure that employees will not be exposed to hazardous differences in electric potential. Unless the employer can demonstrate that the methods in use protect each employee from the hazards that could arise if the mechanical equipment contacts the energized line or equipment, the measures used shall include all of the following techniques:
  - (1) Using the best available ground to minimize the time the lines or electric equipment remain energized,
  - (2) Bonding mechanical equipment together to minimize potential differences,
  - (3) Providing ground mats to extend areas of equipotential, and
  - (4) Employing insulating protective equipment or barricades to guard against any remaining hazardous electrical potential differences.
  - (a. No ground was used on the digger derrick truck that made contact with an unprotected 7200-volt primary line while attempting to take a power pole off the truck that was located at a job site at the end of *Road, City, MI. (MIFACE removed the incident location from the citation)*
  - b. No barricades or personal protective equipment was used on the digger derrick truck that made contact with an unprotected 7200-volt primary line while attempting to take a power pole off the truck that was located at a job site at the end of *Road, City, MI. (MIFACE removed the incident location from the citation)*