

**Case 83. 41-year-old male electrician died after being catapulted from an elevated work platform while attempting to remove a flagpole.**

On March 15, 2004, a 41-year-old male electrician died after being catapulted from an elevated work platform while attempting to remove a flagpole. He was a member of a two-person crew. After arriving at the worksite in the afternoon, he discussed the flagpole removal with a representative of another company (Company B) and the onsite foreman from Company B. The victim was operating a vehicular-mounted, elevating work platform that was equipped with a hydraulic-powered winch on the end of the boom. The victim positioned the bucket truck so the rear of the truck faced towards the flagpole. The truck's position was approximately seven feet from a 208-volt service line. After setting the outriggers, the victim got in the bucket and elevated it approximately 35 feet to position himself near the top of the pole to attach the necessary rigging for removal. He hooked the nylon choker on the top just below the flagpole's ball, and hooked the braided nylon rope from the winch to the choker using a clevis. He placed the choker over the ropes, but when an employee from company B questioned him, he relocated the choker under the ropes. He had not put on a safety harness before elevating himself. Once the rigging was in place, he attempted to pull out the flagpole using the hydraulic winch. The winch had a rating of 2000 pounds and the flagpole weighed approximately 200-300 pounds. The pole was relatively new and was a "friction fit." He was unable to lift the flagpole. Crewmembers from Company B started to hand dig the sand away from the base of the pole to possibly aid in the removal. At some point while he was attempting to lift the pole and as pressure was being applied, the winch's lifting rope broke. When the rope broke, the release of pressure on the boom catapulted the victim out of the bucket. As he fell, he struck the truck and then the ground. Emergency personnel transported him to a local hospital where he was pronounced dead.

MIOSHA issued the following Serious and Other citations to the employer:

Serious:

GENERAL RULES, PART 1, RULE 114(1).

An employer shall develop, maintain, and coordinate with employees an accident prevention program, a copy of which shall be available at the worksite.

No written safety program on site or implemented company wide.

Serious:

PERSONAL PROTECTIVE EQUIPMENT, PART 6, RULE 622(1).

A helmet, as prescribed in R408.40621, shall be used to protect the employee where a hazard or risk of injury exists from falling or flying objects or particles or from other harmful contacts or exposures.

No hard hats. Employees were exposed to possible head injuries while attempting to remove flag pole using a hydraulic winch that was attached to a vehicle-

mounted elevating work platform. One employee in the work platform and one employee on the ground watching.

Serious:

AERIAL WORK PLATFORMS, PART 32, RULE R408.43209(2).

When operating aerial work platforms or other equipment under, over, by, or near energized electric power lines the following clearances shall be maintained:

Voltage	Minimum clearance
0-50 kv	10 feet
More than 50 kv	10 feet + 0.4 inch per kv

Required clearance not maintained. Employee who is attempting to remove a flag pole using a vehicle-mounted elevating work platform is approximately seven feet from a 208 volt service line.

Serious:

AERIAL WORK PLATFORMS, PART 32, RULE R408.43209(6).

The manufacturer's rated load capacity shall not be exceeded. The employer shall ensure the load and its distribution on the platform are in accordance with the manufacturer's specifications. The aerial work platform rated load capacity shall not be exceeded when loads are transferred to the platform at elevated heights.

Manufacturer's rated load capacity exceeded. Employer failed to ensure employee who is using winch on boom while elevated did not exceed the rated capacity when load is transferred to the work platform.

Serious:

AERIAL WORK PLATFORMS, PART 32, RULE R408.43209(11).

A safety harness with a lanyard which is in compliance with construction safety standard, Part 45. Fall Protection, being R408.44501 et seq. of the Michigan Administrative Code, and which is affixed to attachment points provided and approved by the manufacturer shall be provided by the employer and used by any occupant of an aerial work platform described in the provisions of R408.43202(a) and (c) and figures 1 and 3. A fall arrest system shall only be used where the aerial lift is designed to withstand the vertical and lateral loads caused by an arrested fall.

No fall protection was being used on the elevated work platform.

Serious:

AERIAL WORK PLATFORMS, PART 32, RULE R408.43207(8).

An employer shall provide each employee who will operate the aerial work platform with instruction and training regarding the equipment before a permit is

issued. Such instruction and training shall ensure that each operator is in compliance with the minimum following provisions:

- (a) Is instructed by a qualified person in the intended purpose and function of each of the controls
- (b) Is trained by a qualified person or reads and understands the manufacturer's or owner's operating instructions and safety rules
- (c) Understands by reading or by having a qualified person explain all decals, warnings and instructions displayed on the aerial work platform
- (d) Reads and understands the provisions of this subrule and subrules (1) to (7) and (9) of this rule or be trained by a qualified person on their content.

Employer failed to provide the operator of an aerial platform with training and an aerial work permit.

Other:

HANDLING AND STORAGE OF MATERIALS, PART 8, RULE 833(1).  
All slings used to store or handle material for construction operations shall meet the requirements of Part 49, Slings being R408.14901et seq. of the Michigan Administrative Code, with the exception of R 408.14935.

Damaged sling being used. Sling that appears to be approximately 1½ inches wide and 10 feet long has several frames. Sling being used for flag pole removal.

Other:

AERIAL WORK PLATFORMS, PART 32, RULE R408.43207(9).  
The manufacturer's operating instructions and safety rules shall be provided and maintained in a legible manner on each unit by the employer.

Employer failed to ensure that the manufacturers operating instructions and safety rules were maintained in the unit.

Other:

LIFTING AND DIGGING EQUIPMENT, PART 10, RULE R408.41012a(1).  
A thorough, annual inspection of a crane, derrick, or excavation equipment shall be made by a qualified person. The employer shall maintain, on the jobsite, a copy of the records of the date and results of the latest inspection for each piece of equipment.

Employer failed to have an annual inspection report on site. Employee is operating a vehicular-mounted elevating work platform that is equipped with a hydraulic powered winch on the end of the boom. Employee using winch that is equipped with a nylon rope while attempting to remove a flag pole.