## Case 327 48-year-old construction laborer died when he fell approximately 28 feet from a shop-built, 4-foot deep by 16-foot long scaffold platform affixed to the forks of an extendable boom, rough terrain Skytrak 6036 forklift.

A 48-year-old male construction laborer died when he fell approximately 28 feet from a shopbuilt 4-foot deep by 16-foot long scaffold platform affixed to the forks of an extendable boom, rough terrain Skytrak 6036 forklift. The scaffold platform was affixed to the Skytrak forks via "C" clamps. The scaffold did not have guard rails. The decedent was a member of a three-person work crew engaged in setting windows in a residential home. The decedent and a coworker loaded a 56" by 106" window on the platform, standing it up and leaning against the carriage of the forks. One coworker was inside the home on the second floor, awaiting the delivery of the window. The forklift operator lifted the decedent and the window approximately 28 feet to the second level window opening. The forklift operator could not see the decedent's movement because the film on the window blocked his view. The forklift operator was getting ready to ask the decedent if it was alright to lower him to the second floor window when there was a 25 mph wind gust. The decedent was holding the window, but due to the wind gust, the wind "picked up" the window and both the window and the decedent fell to the ground. Emergency response was called and CPR was performed. The decedent was transported to a local hospital where died.

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

## **SERIOUS:** GENERAL RULES, PART 1

• Rule 114 (1):

An accident prevention program was not developed, maintained, and coordinated with employees.

No accident prevention program developed for employees engaged in a wood framing/window setting type of operation. Employees involved in a fatality related to a scaffold mounted upon an extendible boom rough terrain forklift.

• Rule 132(3):

A person who has a valid certificate in first aid training was not present at the worksite to render first aid.--

No first aid/CPR trained employee available at the jobsite of a fatal accident.

## SERIOUS: SCAFFOLDS AND SCAFFOLD PLATFORMS, PART 12

• Rule 1245(1):

An employer shall ensure that an employee has been trained before the employee's assignment as an operator of a rough terrain forklift truck that is used to elevate employees. An employee shall be trained in all of the following areas:

- (a) The capabilities of the equipment and its attachments
- (b) The purpose, use, and limitations of the controls
- (c) How to make daily checks

No training provided for the operator of an extendible boom rough terrain forklift prior to hoisting employees. Operator and another employee, scaffold platform, and forklift were involved in a fall/fatality. Operator is not in direct view of employee being hoisted upon platform.

• Rule 1243(1):

Before an employee is elevated on a rough terrain forklift truck scaffold, a pre-lift meeting shall be held to review the appropriate requirements and procedures to be followed. The pre-lift meeting shall be attended by all of the following entities:

- (a) The lift operator
- (b) The signal person
- (c) Employees to be lifted
- (d) The person who is responsible for the task to be performed

No pre-lift meeting held prior to hoisting employee located upon a scaffold mounted to an extendible boom rough terrain forklift. Operator is not in direct view of employee, due to the scaffold itself and film covering window also located upon platform. Signalman is located inside of the new home under construction. While being held in position, employee and window fell from scaffold, resulting in a fatality.

• Rule 1243(5):

A work platform shall be in compliance with all of the following requirements:

- (a) Except for the guardrail system as specified in construction safety standard Part 21. Guarding of Walking and Working Areas, being R 408.42101, et seq. of the Michigan Administrative Code, be of welded mild steel construction that has a minimum safety factor of 4 times the maximum intended load.
- (b) Have a continuous guardrail system constructed as follows:

- (i) Have a top rail which is located not less than 36 inches, nor more than 42 inches, above the platform floor and which is constructed to withstand a minimum of 200 pounds of force in any direction.
- (ii) Have a midrail which is installed at mid-height between top rail and platform floor and which is constructed to withstand a 200-pound side thrust.
- (iii) Have a toe board which is not less than 4 inches in nominal height and which is installed not more than ¼ of an inch above the floor around the periphery of the work platform. If the platform has a gate, then the toe board shall be installed on the gate.
- (c) Have a wood-planking, steel plate, or steel grating bolted or welded to the bottom of the platform and be maintained free of slip or trip hazards.
- (d) Have a permanently affixed sign on the platform that specifies the maximum number of passengers allowed, the work platform identification number, and the maximum rated load.
- (e) Be easily identifiable by high-visibility color or marking.

Scaffold mounted upon an extendible boom rough terrain forklift not in compliance with the following:

- A. No guardrail with toe board around the entire scaffold.
- B. No signage signifying the rated capacity and number of passengers.

Employee directly exposed to these deficiencies while located on scaffold having a window (56" X 106"). Employee with window fell from scaffold, resulting in a 28-foot fall/fatality.

• Rule 1243(21):

Floor dimensions parallel to the truck longitudinal centerline shall not be more than 2 times the load center distance listed on the rough terrain forklift truck nameplate. The floor dimension width shall not be more than the overall width of the truck measured across the load-bearing tires plus 10 inches (250 mm) on either side. The minimum space for each employee on the platform shall be not less than 18 inches (450 mm) in either direction.

Scaffold platform extending 4 feet past the outer dimensions of forklift on both sides. Employee exposed to inadvertent machine/scaffold movement side to side. Scaffold measures 4 ft. deep X 16 ft. long. Employee fell from scaffold platform 28 feet to frozen grade below, resulting in a fatality.

• Rule 1243(9):

If an employee is elevated in a platform on a variable reach lift truck, a personal fall arrest system, including the anchorage required in Part 45. Fall Protection, being R 408.44501 et seq., of the Michigan Administrative Code and Part 6. Personal Protective Equipment, being R408.40601 et seq., of the Michigan Administrative Code, is required and shall be worn when an employee is elevated.

No fall protection provided or used while employee with material was located upon a scaffold platform 28 ft. above grade. Employee with unsecured window (56 ft. X 106 ft.) fell from scaffold platform. Fall resulted in a fatality.

• Rule 1243(24):

The only tools that are permitted on the work platform are hand tools and portable powered tools. Materials and tools shall be secured to prevent displacement. The total weight of compressed gas cylinders shall not be more than 20 pounds.

Material (window) not properly secured to the scaffold platform. Employee exposed to the inadvertent movement of material (window 56" X 106"). Unsecured window and employee fell from the scaffold approximately 28 ft. Fall resulted in fatality.

• Rule 1243(25):

A work platform shall not be used during high winds, electrical storms, snow, ice, sleet, or other adverse weather conditions that could affect the safety of the employees on the work platform or the operator of the truck.

Scaffold platform mounted upon the forks of a Skytrak 6036 extendible boom forklift. Scaffold in use during high wind conditions. Employee and unsecured window (56" X 106") fell from scaffold 28 ft. resulting in a fatality.

## **SERIOUS:** PERSONAL PROTECTIVE EQUIPMENT, PART 6, Rule 622(1):

A helmet, as prescribed in R408.40621, was not 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 hat provided or worn by employee being elevated upon a scaffold mounted to an extendible boom rough terrain forklift. Employee is exposed to overhead type hazards and also exposed to a fall to concrete structure, building debris, aluminum scaffold pick, and frozen grade.