

Case 462. 47-year-old journeyman ironworker died he fell 16 feet from a work platform in a manufacturing facility.

A 47-year-old male journeyman ironworker died after falling 16 feet from a work platform in a steel manufacturing facility. The decedent was performing scheduled maintenance, including leveling a rail system by welding shims onto the rail system. To access the work platform, the decedent was required to step through a standard barrier system from a deck area. The decedent was utilizing Guardian Fall Protection, 30-foot velocity SRL (self-retracting lifeline) attached to a shock absorber extension, which was then attached to a personal fall arrest harness. The SRL was attached to Guardian-manufactured D-ring supports strategically placed/welded approximately 10-12 inches in from the deck edge. The decedent attached the SRL hook/carbineer to his shock absorber extension which was attached to his harness and then stepped through the standard barrier system and then down to his work platform. The work platform was covered with debris (e.g. broken concrete and dirt). It appeared the decedent slipped and fell from the work platform. The decedent fell approximately 10-12 feet before his upper chest area made contact with a vertical scaffolding post located below. He continued to fall and landed on the scaffolding deck where he was assisted by a coworker and later transported for treatment. The decedent's fall protection did not stop the fall.

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

SERIOUS: GENERAL PROVISIONS, GI PART 1, RULE 408.10015(3): The floor of a work area, passageway, or aisle shall be maintained free of hazardous accumulations of scrap, debris, water, oil, grease, and other slip and trip hazards, except where an immediate emergency operation must be performed.

The deck of a work area and work platform located below was observed with accumulation of debris, including broken concrete, dirt, uncovered floor depressions, and hoses, which created slip and trip hazards. The employees were required to step through/over this debris to access their work area to perform repairs/maintenance.

SERIOUS: FLOOR AND WALL OPENINGS, STAIRWAYS AND SKYLIGHTS, GI PART 2, RULE 408.10220(1): One of the following shall be used to gain access to another elevation of more than 16 inches:

- (a) Flight of stairs.
- (b) Fixed industrial stairs.
- (c) Ramp.
- (d) Fixed ladder.
- (e) A portable ladder as prescribed in the general industry safety standards commission standard, Part 4. Portable Ladders, being R 408.10401 to R 408.10456 of the Michigan Administrative Code, may be used for temporary access to another elevation.

An employee, tasked with stepping down and then stepping back up approximately 28 inches from a rail support onto a work platform, was not provided with intermediate stairs, ramp or ladder. As the employee attempted to step down from the rail support onto the work platform, he fell over six (6) feet, resulting in fatal injuries.

SERIOUS: PERSONAL PROTECTIVE EQUIPMENT, GI PART 3, RULE 408.13390: An employer shall ensure that each employee whose fall protection is not covered by another MIOSHA safety standard, and the employee's work area is more than 6 feet above the ground, floor, water, or other surface, shall be protected as prescribed in Construction Safety Standard Part 45 "Fall Protection," as referenced in R 408.13301a. The following systems are included in CS Part 45 "Fall Protection:"

- (a) Guardrail systems.
- (b) Safety net systems.
- (c) Personal fall arrest systems.

1926.502(d)(16): CS PART 45, FALL PROTECTION

Personal fall arrest systems, when stopping a fall shall:

- 1926.502(d)(16)(iii): CS PART 45, FALL PROTECTION

Be rigged such that an employee can neither free-fall more than 6 feet (1.8 m), nor contact any lower level;

- a. An employee, utilizing personal fall protection while working adjacent to a ledge approximately 25-30 feet above the lower level, did not have his personal fall protection system rigged to prevent him from free-falling in excess of six (6) feet. The employee was using a retractable lanyard, shock absorbing extension and harness when he fell over six (6) feet, he struck a vertical scaffolding post located below the ledge, resulting in fatal injuries.

- 1926.502(d)(21): CS PART 45, FALL PROTECTION

Personal fall arrest systems shall be inspected prior to each use for wear, damage and other deterioration, and defective components shall be removed from service.

- b. An employee, utilizing personal fall protection system did not inspect his retractable lanyard prior to each use for defective components and ensure the retractable lanyard had a functional braking system. The employee fell over six (6) feet before striking a vertical scaffolding post located below the ledge, resulting in fatal injuries.