

Case 398. 55-year-old roofer who was the foreman on site, died when he fell approximately 27 feet through a deteriorated 2-foot-wide by 5-foot long concrete roof deck section to the concrete floor of an industrial plant.

A 55-year-old male roofer who was the foreman on site, died when he fell approximately 27 feet through a deteriorated 2-foot-wide by 5-foot long concrete roof deck section to the concrete floor of an industrial plant. The low-slope roof deck was approximately 23 feet wide and 180 feet long. The decedent's employer had been contracted by the building owner to perform repairs; the job being performed when the incident occurred was a roof tear-off and re-roof. The firm assessed the roof's condition by looking up at the roof from below. When the roof decking was removed, a 2-foot wide by 5-foot long section of 3-inch concrete roof deck was found to be damaged (broken in half) so a re-roof could not occur until it was fixed. The decedent contacted his management about the damaged roof deck panel. The decedent was the foreman of a 4-person crew and had instructed his coworkers to keep away from the damaged area. Equipment and hand tools had been placed at the damaged area to identify the damaged deck section. Management was enroute to place barricades below. The decedent and a coworker were on top of the roof cleaning up roofing tear off debris and two coworkers were on a lower roof receiving debris. His coworker used a broom to sweep the debris to the decedent's shovel, and the decedent emptied the shovel into a wheelbarrow. When the wheelbarrow was full, he walked the wheelbarrow to the area where he would dump it to the coworkers working on the deck below him. While walking to this area, he fell 27 feet 6 inches through an unidentified damaged concrete roof section to the concrete floor below. It was unknown if the concrete section failed or if the supporting structural steel failed, causing the fatal fall. The decedent was not wearing fall protection.

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

SERIOUS: CS Part 45, Fall Protection REF 408.44502

- 1926.501(a)(2): The employer shall determine if the walking/working surfaces on which its employees are to work have the strength and structural integrity to support employees safely. Employees shall be allowed to work on those surfaces only when the surfaces have the requisite strength and structural integrity.

Employer structural strength and integrity evaluation did not ensure the structural strength and integrity on the roof. Employees engaged in roof tear off and re-roof industrial building, *City*. *MIFACE removed the city name identifier*.

Instance A: Employees became aware of a failing concrete roof deck section, 2 feet wide by 5 feet long, during tear off on room 27 feet 6 inches high.

Instance B: Employee fell through a failed concrete roof deck section 2 feet wide by 5 feet long, during clean up on roof, to the concrete floor 27 feet 6 inches below.

- 1910.501(b)(10): Except as otherwise provided in paragraph (b) of this section, each employee engaged in roofing activities on low-slope roofs, with unprotected sides and edges 6 feet (1.8m) or more above lower levels shall be protected from falling by guardrail systems, safety net systems, personal fall arrest systems, or a combination of warning line system and guardrail system, warning line system and safety net system, or warning line system and personal fall arrest system, or warning line system and safety monitoring system. Or, on roofs 50-feet (15.25m) or less in width (See Appendix A to subpart M of this part), the use of a safety monitoring system alone [i.e. without the warning line system] is permitted.

No fall protection being used on low slope roofs up to 28 feet 1 inches high. Employees engaged in roof tear off and re-roof industrial building, *City. MIFACE removed the city name identifier.*

- 1910.503(a)(1): The employer shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards.

No fall protection training provided to employees on roofs up to 28 feet 1 inch high. Employees are not recognizing fall protection hazards and procedures to minimize these hazards. Employees engaged in roof tear off and re-roof industrial building, *City. MIFACE removed the city name identifier.*