

A 36 year old male was fatally injured when he fell 23' to the concrete while in the process of removing old sheet metal roofing to install new roofing. The existing roofing was constructed with metal in sheets measuring 3' X 30'. The metal was attached to bar joists and Z purlins with sheet metal screw fasteners. The victim was a foreman for one of the crews on site.

Two crews were removing the fasteners from 4 sheets of the roof at a time so that they could install an integral piece of eave trim that is manufactured in 10-foot lengths. The new roofing panels have to sit on the trim piece and have to be installed first. Unless the old roofing material is removed entirely before beginning the installation of the new product, the old panels have to be moved in a way that will give the roofers access to the area where the eave trim has to be installed; hence, the reason for the crews removing the fasteners.

The employees were wearing fall protection harnesses and lanyards with a rope-grab attached to a vertical rope lifeline. The lifelines were anchored to one of the bar joists supporting the roof. It was determined that the victim had been working 30 feet from the anchor point of his lifeline, and his lanyard was adjusted accordingly. He then returned to a point near the lifeline anchorage to presumably retrieve his tools. It was at that point he stepped thru a piece of existing roofing material of which the fasteners had been removed, causing him to fall to the concrete. It appears that there was too much slack in the lifeline. When interviewed, employees stated that everyone had been adjusting the lanyard and lifeline combination as needed as they moved about the existing roof.

Citation(s) as Originally Issued

A complete inspection was conducted at the accident scene. Some of the items cited may not directly relate to the fatality.

Citation 1 Item 1 **Type of Violation: Serious** **\$4000**

29 CFR 1926.501(a)(2): Employees were allowed to work on surfaces which did not have the requisite strength and structural integrity:

In that two employees were allowed to work on a surface whose structural integrity had been compromised by the removal of fasteners.

Citation 1 Item 2 **Type of Violation: Serious** **\$4000**

29 CFR 1926.760(d)(1): Guardrail systems, safety net systems, personal fall arrest systems, positioning device systems and their components shall conform to the criteria in 29 CFR 1926.502 (see Appendix G to this subpart):

Instance A: In that two rope lifelines being utilized by two employees were in contact with the edge of metal roofing material and not protected against being cut or abraded (1926.502(d)(11)).

Instance B: In that two employees were utilizing personal fall arrest systems where free fall exceeded 6 feet (1926.502(d)(16)(iii)).

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Picture shows the old roofing system and the area where the victim fell through. The fasteners had been removed from the roofing metal to facilitate the installation of the new eave.



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Photo shows the harness, lanyard, and lifeline that was worn by the victim.

