## 22. Fall from Scaffolding

A **26-year-old** Hispanic employee was fatally injured when the scaffolding he was working on collapsed. The victim and four co-workers were working on a 2,000,000-gallon water tank repainting the outside of the tank. The victim and one of his co-workers worked from a two-point-suspension scaffolding approximately 24 feet from the ground up the side of the tank. After working for about 20 minutes, one of the cables that supported the scaffolding pulled free and allowed the end of the scaffold to fall. The two employees on the scaffold at the time were not wearing personal fall arrest devices and fell with the scaffold. One employee fell away from the tank onto the dirt and gravel ground and sustained injuries to his arm and shoulder. The victim however fell into the man-opening at the base of the tank and struck his head, receiving a serious head injury. The cable clamps used to rig the cables to a pipe at the center of the tank top and to the scaffolding were not tight enough and the cable pulled free allowing the scaffold to fall. The victim passed away a little over a month later.

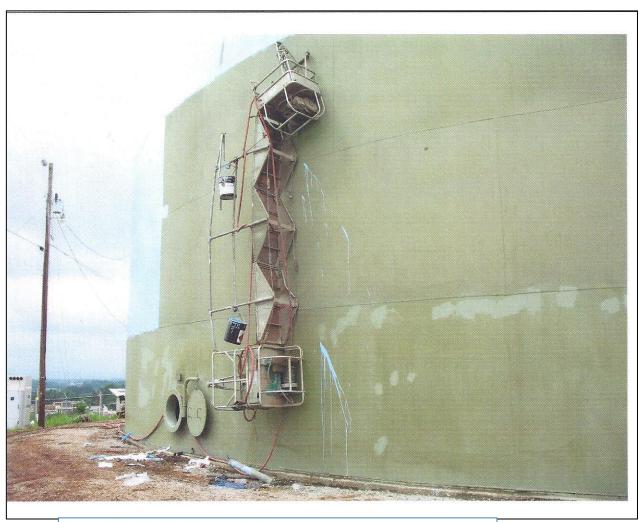
## Citation(s) as Originally Issued

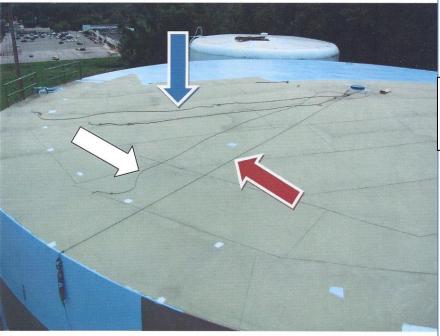
## Citation 1

Item 1a 1926.451(d)(8)	The employer did not ensure that the wire suspension ropes were joined together through the use of eye splice thimbles connected
	with shackles or cover plates and bolts.
Item 1b 1926.451(d)(12)(i)	The employer did not ensure that a minimum of three wire rope clips were installed with the clips a minimum of 6 wire rope
	diameters apart.
Item 1c 1926.451(d)(12)(iv)	The employer did not ensure that clips were inspected and retightened to the manufacturers' recommendation at the start of each work shift.
Item 1d 1926.451(d)(12)(vi)	The employer did not ensure that the U-bolt was placed over the dead end of the rope and that the saddle was placed over the live end of the rope.
Item 2a 1926.451(d)(10)	The employer did not ensure that the ropes were inspected for defects by a competent person prior to each work shift and after every occurrence which could affect the integrity of a rope.
Item 2b 1926.451(f)(3)	The employer did not ensure that the scaffold and scaffold components were inspected for visible defects by a competent person prior to each work shift and after every occurrence that could affect the structural integrity of a scaffold.
Item 2c 1926.451(f)(4)	The employer did not ensure that any part of a scaffold which was damaged or weakened, such that its strength was less that required, was immediately repaired or replaced, braced to meet requirements or removed from service until repaired.
Item 2d 1926.451(f)(7)	The employer did not ensure that the scaffold was erected, moved, dismantled, or altered only under the supervision and direction of a competent person qualified in scaffold erecting, moving, dismantling, or alteration.
Item 2e 1926.452(p)(4)	The employer did not ensure that the platform was of a ladder type, plank type, beam type, or light metal type.

Item 2f 1924.454(b)	The employer did not have each employee who was involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold trained by a competent person to recognize any hazards associated with the work in question.
Item 3a 1926.451(g)(1)(ii)	The employer did not ensure that each employee on a single-point or two-point suspension scaffold shall be protected by both a personal fall arrest system and guardrail system.
Item 3b 1926.454(b)	The employer did not ensure that each employee who performed work while on a scaffold was trained by a person qualified in the subject matter to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards.
Item 4a 1926.502(d)(6)(i)	The employer did not ensure that employees used snap hooks designed to be engaged directly to webbing, rope, or wire rope.
Item 4b 1926.502(d)(9)	Lanyards and vertical lifelines did not have a minimum breaking strength of 5,000 pounds.
Item 4c 1926.502(d)(11)	The employer did not ensure that lifelines were protected against being cut or abraded.
Item 4d 1926.502(d)(23)	The employer did not ensure that the personal fall arrest system was not attached to a guardrail system or hoists.
Item 5 1926.502(d)(15)	The employer did not ensure that the anchorages used for the attachment of personal fall arrest equipment were independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5000 pounds per employee attached.
Item 6a 1926.502(d)(21)	The employer did not ensure that the personal fall arrest systems were inspected prior to each use for wear, damage, and other deterioration and defective components were not removed from service.
Item 6b 1926.503(a)(1)	The employer did not provide a training program for each employee who might be exposed to a fall hazard.

## **See Photos on Next Page**





White arrow = cable that pulled free Blue arrow = fall protection rope Red arrow = other cable holding scaffold