Foreman and Laborer Fall when Aerial Lift Struck by Vehicle

Industry: Highway, Street, and Bridge Construction
Task: Installing retaining rods on bridge
Occupation: Foreman and laborer

In July 2016, a 40-year-old construction foreman died and a 57-year-old laborer was injured when a truck struck the elevated aerial lift platform they were working in, ejecting them from the platform. The two men worked for a civil construction contractor that does, among other projects, bridge construction. The Seattle Department of Transportation (SDOT) hired the contractor to replace rubber bearing pads on an expressway bridge. Their task that day was to install replacement retaining rods underneath the bridge. Also known as seismic restrainers, these rods prevent excess movement of bridge elements. They were using a self-propelled telescopic boom-supported elevating work platform or aerial lift. They positioned the lift underneath the bridge in a dirt median between two roadway ramps. After loading equipment, they both stood on the platform while the foreman raised it and boomed out so that they could access the work area between girders on the bridge above. The work area was about 30 feet above a single lane of an elevated exit ramp. As the foreman was positioning the platform, it was struck by a box truck traveling in the lane below. The impact spun the platform 180 degrees and ejected the workers from the platform. The foreman was thrown 50 feet horizontally, landing on a railroad track 48 feet below. He died of his injuries. The laborer fell about 10 feet and dangled from his lanyard above the road until the truck driver and a passerby helped him down. Emergency responders took him to a hospital where he received treatment for abdominal injuries. The investigation determined (1) temporary traffic controls were not used, exposing the two workers to an open traffic lane, (2) traffic controls had been used on this project by the employer previously, though ramp closure was not permitted on business days, per the contract with SDOT, (3) though the two workers were wearing full body harnesses, neither of them fixed their lanyards to the manufacturer’s provided and approved attachment points. The foreman’s lanyard was not attached to anything, the laborer tied off to the platform’s handrail.

Requirements

- Apply the requirements of WAC chapter 296-155 Part E, Signaling and Flaggers. Then use temporary traffic controls according to the guidelines and recommendations in Part 6 of the Manual on Uniform Traffic Control Devices when operating an elevated work platform over a roadway. See WAC 296-869-60020(2)
- Take special precautions to meet the requirements of local ordinances or workplace safety standards, and use warnings such as flags, roped-off areas, flashing lights and barricades when setting up an elevated work platform when other moving equipment or vehicles are present. See WAC 296-869-60040(2)
- Ensure all persons on the platform of boom-supported elevating work platforms wear a full body harness and lanyard fixed to manufacturer provided and approved attachment points. See WAC 296-869-60020(2)

Recommendations

- Employers should provide adequate on-site supervision to ensure that employees consistently follow safe work practices.
- Perform a job hazard analysis (JHA) to identify site safety hazards and ensure that workers are protected from those hazards.

Resources