

## **Aerial Safety—Poles, Ladders, & Lifts**

### **Introduction**

Aerial safety practices are becoming more important as telecommunications plant upgrades continue to increase. Full-time employees, contractors, subcontractors and temporary hires are all working somewhere in your franchise's plant. Each work area has its own problems and personality regarding safe practices and fall protection.

As illustrated by this past winter's extremes, the weather is an additional factor that affects safety on a day-to-day basis. Low temperatures combined with moisture and high winds can have crews, in effect, working on ice skating rinks every time they put their feet down. Below-freezing temperatures make equipment unreliable with brittle and unyielding panels, door hooks and so on. Work slows as crews bundle up and have to take breaks from work in subzero temperatures.

Stress is always present in construction projects. Deadlines do not change because of unfavorable weather conditions or because there is a labor shortage. Straining to meet goals for customers, project deadlines and budget can mean adding more contractors with little concern for their training or equipment.

### **Aerial safety**

Aerial safety and fall protection is only one of many areas we need to carefully evaluate under these circumstances. If training, equipment and supervisory enforcement of safety rules are being neglected to "get the job done" putting an employee 20 or more feet in the air is very likely to lead to an accident or serious injury.

Occupational Safety and Health Administration (OSHA) regulations 29 CFR 1910.268 and 1926.502 and 503 cover many of the telecommunications requirements for aerial safety. These requirements are very specific regarding climbing gear and ladders. They are less clear when it comes to buckets on aerial lift trucks.

Once you get more than four feet off the ground, personal fall protection is mandated by 1926.501 (a)(1) and (b)(1). Do we put an employee in a body belt and lifeline or a full body harness and six-foot lanyard under these circumstances? As long as the employee cannot fall farther than two feet, the belt and lifeline are acceptable. If the employee could fall farther than two feet, a full body harness and lanyard are required.

In a bucket, any lines or lanyards must be tied off to the boom arm and not to the bucket. If we restrict the employee's fall to two feet, then the line cannot be more than two feet long and we restrict movement in the bucket, which is not always feasible when performing construction and upgrades. As a consequence, most of us in the industry have adopted full body harnesses and six-foot lanyards to meet 29 CFR 1926.501 and 502 requirements. While it is rare for an employee to fall out of a bucket, it is more common that one will bounce out when another vehicle hits the aerial lift truck. The harness and lanyard have saved life and limb on more than one occasion.

1910.268 further mandates that "safety straps and body belts shall be used while working on elevated work platforms," including ladders. Section 8 also mandates their use on poles, towers and

similar structures that do not have adequately guarded work areas. Section (g)(1) puts all the responsibility on the shoulders of the employer, stating that the "employer shall ensure their use when work is performed at positions more than four feet above the ground." It further requires that every piece of equipment be inspected by a competent person prior to each day of use to determine that it is in safe working condition.

## **Pole climbing, ladders and aerial lift trucks**

Poles, ladders and lift trucks all have one thing in common: They can be used as modes of transportation to get you from Point A (ground level) to Point B (the height at which you need to work).

Years ago, when I taught pole climbing and aerial safety classes, I would start off the class with a simple statement. "Some people work behind a desk; you work 20 feet up in the air. If that is not where you want to work, you might want to go back to being a bank president."

## **Training required**

Each of these modes of transportation has distinct advantages and disadvantages. All three share a mandatory requirement: training and certification.

OSHA clearly defines training requirements in 29 CFR 1910.268. The regulation says, "(c) Training. Employers shall provide training in the various precautions and safe practices described in this section and shall ensure that employees do not engage in the activities to which this section applies until such employees have received proper training in the various precautions and safe practices required by this section."

To translate this into English: If you are not trained and qualified in a certain mode of transportation, you should not use that mode. Sending out unqualified workers may carry great risks, such as medical costs, lost work time, lower production and liability.

## **Ladders**

Some workers may think: "Why do I have to be qualified to use a ladder? I can just throw it against a building and climb up; what's the big deal?" Falling is the big deal. According to the Bureau of Labor Statistics' 1994 Census of Fatal Occupational Injuries, 8.8 percent of occupational deaths are related to falling. Section 1910.268 (h) outlines ladder rules.

Falling isn't the only hazard involved with using a ladder. Lifting the ladder itself also is a major cause of injuries. Using improper technique while lifting a ladder can lead to lower back injuries so severe that they may cause an employee to miss work or even suffer a lifetime of pain. Maneuvering a 100-pound ladder off the truck and through a typical yard, around obstacles such as lawn chairs and toys, can be challenging, to say the least.

Anyone who works with a ladder needs to know a few basic fundamentals:

- How to inspect a ladder
- How to survey the area
- How to lift a ladder properly and where its balance points are located

- How to properly set-up a ladder
- How to properly climb
- How to secure one's body while working
- How to work properly

## **Pole climbing**

One clear advantage of pole climbing over ladder use is the weight of the equipment. An average set of hooks (climbers, gaffs and so on) weighs approximately seven pounds. Compare this to a 100-pound, 28-foot extension ladder, and the benefits are obvious. Section 1910.268(g) covers pole climbing.

Remember, only qualified workers should climb poles. The best way to become qualified is to go through a formal pole-climbing course, in a controlled environment such as a pole farm. The pole farm does not have to be elaborate; it can have just one or two poles. The advantage of a pole farm is that it provides a place to practice in the presence of a qualified trainer. This is essential because, as the saying goes, "Practice doesn't make perfect; practicing perfect makes perfect."

The pole climber should learn the fundamentals listed here. A formal class will teach much more, but the most important lesson for a pole climber is confidence.

- Correct use of personal protective equipment
- Techniques for surveying the pole and surrounding area
- Testing, shaping and sharpening gaffs
- Ascending and descending the pole
- Belting off

## **Aerial lift trucks**

The aerial lift truck, more commonly called a bucket truck, is by far the most complex form of aerial transportation. In fact, OSHA has developed its own standards for aerial lift truck operation (29 CFR 1910.67). You may be thinking that operating a bucket truck is simple: All you have to do is jump in the bucket and hit a few switches, and you're there.

Sometimes, just getting a bucket truck to the work area is a job in itself. An average bucket truck weighs 10,000 pounds and cannot stop on a dime. This is why the trucks are notorious for hitting other vehicles in rear-impact accidents. They are also known for getting stuck in off-road situations, especially in wet conditions. In addition, bucket trucks have poor visibility and should not be backed up unless the driver finds it absolutely necessary or has someone else to act as a guide.

In short, no one should work in a bucket truck without proper training. Operating a bucket truck requires a specific qualification, which includes instruction in the following:

- Workplace set-up
- Performing an inspection
- Understanding hydraulics

- Correct use of fall arrest equipment
- Clearances and Boom operation
- Emergency procedures

## **Bottom Line: Safety in the Air**

As work piles up and deadlines approach, it's tempting to cut corners on safety. But busy schedules make safety training, equipment maintenance, and enforcement of rules all the more necessary.

Falling is a significant cause of occupational death. Ladder safety is important for that reason, as well as for the hazards of simply handling the equipment. A pole farm is the best place to learn, practice, and gain confidence pole climbing. Aerial lift trucks also require training, both for driving and operating the bucket.

To preserve life, limb and property, set up and maintain a comprehensive aerial safety program. It's an essential part of your business.