

2009 Monthly ES&H Campaign: January

Fall Related Fatalities in the Telecommunications Industry

The fast pace and demand for the wireless communication industry has triggered a huge increase in the number of communication towers erected, totaling 20,000 to 50,000 annually. This demand has also brought on a death-ratio for communication workers which is **10 times** that of other industries. A 1992-1998 NIOSH (National Institute for Occupation Safety and Health) study indicated that there were **118** known tower workers death in the U.S. during the same time frame. Of the **118, 93** of these deaths were caused by falls from towers. This article is dedicated to building fall protection safety awareness and providing training resources.

In 2008, 12 deaths were associated with falls from tower structures in the Communication Construction Industry. On March 12th, 2008, the industry incurred its first tragedy when a 34 year old tower tech fell approximately 130 feet to his death; starting the worst incident month the industry has experienced dating back to May 2006.

To gain a perspective on how these accidents occurred and how they could have been prevented, we have prepared the known facts of the incidents.

2008 Communications Industry Fall Related Fatalities

4/12/08	Wake Forest, NC	A 34-year-old tower tech fell approximately 130 feet while transitioning on a monopole.
4/14/08	San Antonio, TX	A 38-year-old tower tech fell 225 feet after leaning back while loosening bolts on a guyed.
4/14/08	Moorcroft, WY	A tower tech fell from an unknown height.
4/17/08	Frisco, NC	A 46-year-old tower tech fell from a 90 foot tower onto a fence and then the ground. http://www.nclabor.com/news/ledger/08May_June.pdf
4/23/08	Natchez, MS	A tower tech fell approximately 100 feet. http://gadgets.boingboing.net/2008/05/29/dying-for-3g-6-cellt.html
5/16/08	Haubstadt, IN	Reportedly under contract to General Dynamics, a 25-year-old fell approximately 140 feet while rappelling down a 200-foot load line at a monopole site.
5/22/08	Miami, FL	Age unknown worker performing maintenance on the Channel 7 WSVN tower fell at approximately 12:00 pm from an unknown height.
7/18/08	Vineland, NJ	55-year-old tower tech fell about 60 feet at approximately 10:50 am from a Crown Castle tower.
7/20/08	Petersburg, ND	38-year-old broadcast engineer fell an estimated 100 feet while painting a tower.
9/12/08	Port Angeles, WA	33-year-old tower tech fell 32 feet along exterior of elevator shaft; incident occurred around midnight.
10/24/08	Ellensburg, WA	24-year-old internet cable tech fell through a skylight 35 feet at a Ford dealership.
11/18/08	Pima Co., AZ	22-year-old tower tech fell from approximately 65 feet from a Self-Support Tower.

Fatalities Investigation Findings

The incident findings indicated that the most common cause of the 2008 fatalities from falls were due to improper use of Personal Protective Equipment for Fall Protection. A subcategory of these findings is directly related to "Free Climbing." Previous investigations on fall fatalities identify the following findings as the top reasons for falls related to the communication industry:

- **Untrained/unqualified employees**
- **Lack of PPE**
- **Lack of readily accessible comprehensive safety guidelines**
- **Lack of first Aid/Rescue Training**

Visit the Communications ES&H website for more information.



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Prevention

To provide a sound foundation of understanding of fall prevention and protection, and establish a baseline to mitigate fall hazards, Bechtel has implemented the Cycle of Fall Prevention and Protection concept. This cycle includes the sequence and subparts shown below.

For each work task:

1. First, **Identify** potential fall exposures
2. Second, **Develop an Approach** to manage potential fall hazards:
 - a. **Evaluate**, the potential hazards and the available control measures
 - b. Then **Implement Controls**
 - c. Attempt to **Eliminate** the potential fall hazards
 - d. Next, try to **Prevent** the fall exposure
 - e. If prevention is not feasible, **Arrest** potential falls by using a PFAS
 - f. Once PFAS is selected, plan and incorporate **Rescue** provisions in the event of an arrest.
3. Finally, at the end of the cycle, the task is completed with the outcome of **NO FALLS** achieved.



Training

There are numerous training providers that offer comprehensive fall protection courses and certifications which meet the requirements of 29 CFR 1926 Subpart M- Fall Protection. However, the nature of the communication industry and scope of work make fall prevention a daily task which involves more technical training specific to working on towers. To address this issue, Bechtel has implemented the Competent Tower Climber training certification which can only be completed through an approved training provider. For more information on Bechtel's fall protection requirements please review section 5.15 Fall Prevention & Protection and 5.16 Competent Tower Climbers in the Bechtel Sub-Contractor ES&H Program or visit:

<http://www.bechtel.com/communications/Safety.html>

Bechtel approved Competent Tower Climbers training providers include:

- Gravitec
- DBI/SALA
- Tractel
- Miller/Troll
- Safety Connections
- MSA
- ComTrain
- Tech Safety Lines, Inc
- Total Access (UK)
- XI Training (UK)
- Citca

In Closing

It's truly tragic that we have lost 12 fellow colleagues in our industry. More tragic, is their deaths could have all been prevented. We need to refocus on prevention and training in 2009.

"Zero" is the only acceptable number.

Resources:

<http://www.cdc.gov/NIOSH/>

<http://www.wirelessestimator.com/>

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