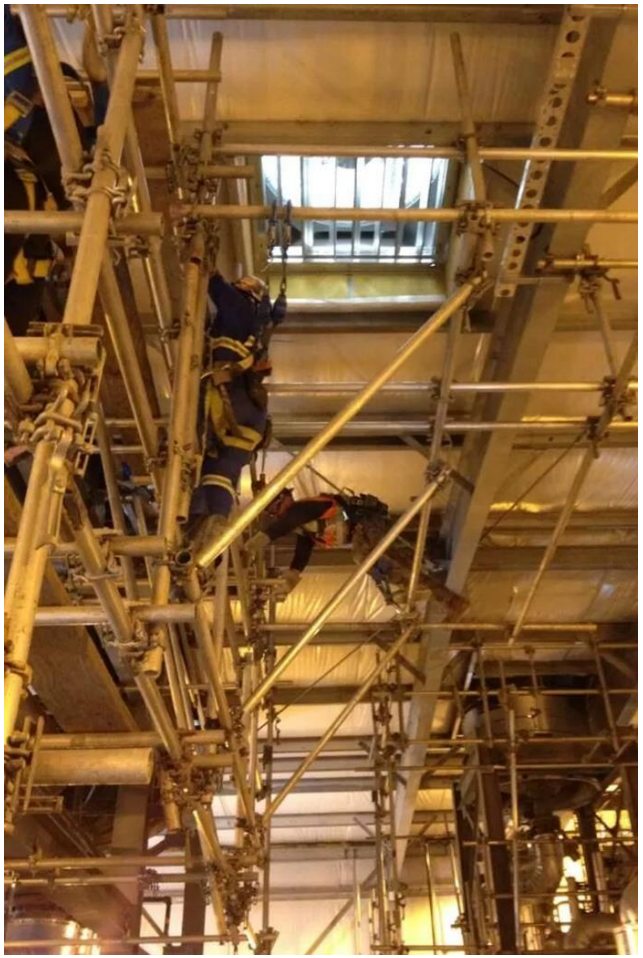
Seven Construction Issues to Consider for 2015

Draft 12 28
2014

These are seven issues for large construction sites. I have seen these seven issues quite frequently in 2014.
- John Newquist

#1 – Scaffold Competent Person

- I am seeing over 95% of the scaffold competent persons not ever seeing the manufacturer's manual for Cuplok, Layher, and Mast Climbing scaffolds.
- Workers using 100% fall arrest erecting scaffold.



Cuplok System

- Manual?
- Jim Mcguire “Companies tell us to just put it together”
- Tom Hallman “It is the most copied scaffold system there is out there”
- Harsco UK makes the original.

“Should have framed the legs to prevent it from spreading out.”

August 2014

Lexington KY
Three Story fall
Hardhats save serious injury

Twin Mast EZ Scaffold, TN

#2 Stair Towers

- Access to the roofs are much safer using a scaffold tower with stairs.
- Ladders are the #1 cause of fall deaths in construction.

#3 Ground Conditions

- July 2014
- More than 300 customers in Port Charlotte FL, lost power around 1:15 pm Thursday after the crane collapsed onto power lines.
- 100F heat
- Crane sank in mud.
- Lucky the piles did not break

#3 Ground Conditions

- June 2014
- FL
- Moving crane on unstable dirt
- Boom fell backwards striking construction worker
- No ground matting used, softer soil.

#3 Ground Conditions

- Firefighters learned that a miscalculation had been made in putting down a track and supports for the crane.
- A difference of about 6 feet too close to the river meant the crane wasn't on solid ground, and it broke through the pavement and leaned slightly toward the river, with its boom over the water.
- Crane too heavy for the surface (precast garage)

#3 Ground Conditions

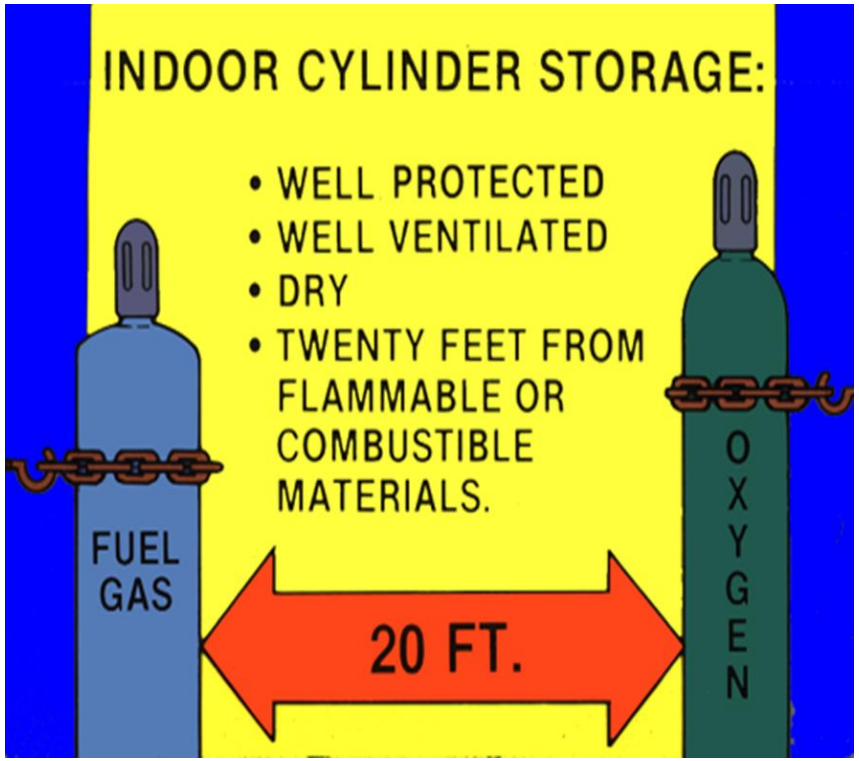
- 1926.1402 (b)
- Ground conditions must be firm, drained, and graded
- Use supporting materials,
- Use equipment manufacturer's specifications for adequate support
- Pad too small

Use equipment manufacturer's specifications for degree of level of the equipment

#4 Oxygen and Acetylene

1926.350(a)(10)
Oxygen cylinders in storage shall be separated from fuel-gas cylinders or combustible materials(especially oil or grease), a minimum distance of 20 feet (6.1 m) or by a noncombustible barrier at least 5 feet (1.5 m) high having a fire-resistance rating of at least one-half hour.

1926.350(a)(11)
Inside of buildings, cylinders shall be stored in a well-protected, well-ventilated, dry location, at least 20 feet (6.1 m) from highly combustible materials such as oil or excelsior.



Using a regular steel plate between oxygen-acetylene has ZERO fire resistance.

#4 Interpretation

- “The literature you provided about these products indicates that the steel barrier has been engineered specifically to meet a ½-hour fire resistance rating and to prevent a fire in one cylinder from spreading to the other cylinder on the cart. The barrier is also depicted as meeting the standard's height requirement. While we do not have the background technical information regarding the design and testing of that product, and are not in a position to independently evaluate the product, as long as the barrier is at least 5 feet high, meets the ½-hour fire resistance rating and is designed to prevent the spread of the fire from one cylinder to another, employers using the product would meet the requirements of §1926.350(a)(10). “
- https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=24266

#4 Another

- The literature you provided about these products indicates that the steel barrier has been engineered specifically to meet a ½-hour fire resistance rating and to prevent a fire in one cylinder from spreading to the other cylinder on the cart. The barrier is also depicted as meeting the standard's height requirement”

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=24741

#5 Swing Radius

- Violation: Excavator extends 42 inches beyond track. It is able to strike anyone walking by on this site.

- This is incompliance. Cones are used to warn people.

#5 Swing Radius

- Area of swing must be marked or barricaded to prevent people in the hazard zone
- Death in 1999 in Rockford
- Cited 5(a)(1)

OSHA Citation on Swing Radius

- Section 5(a)(1) of the Occupational Safety and Health Act of 1970: The employer did not furnish employment and a place of employment which was free from recognized hazards that were causing or likely to cause death or serious physical harm to employees in that employees were exposed to struck by hazards which could result from being hit by the bucket of a backhoe:
- Employees working in a trench were exposed to being struck by the bucket of a Caterpillar Backhoe which was excavating material from the trench. Feasible and acceptable abatement methods to correct this hazard include, but are not limited to the following:
- 1.Prohibit employees from entering into the swing radius or backhoe pivoting radius during excavating operations. 2.Ensure backhoe operators follow manufactures operations manual and safety precautions.
- https://www.osha.gov/pls/imis/establishment.violation_detail?id=314920224&citation_id=01001

1999 Death on Swing Radius

- Employee #1, the foreman at the site of a new office building to be constructed, was directing a crew that was digging up a 2 in. diameter water line and installing a 6-in. diameter line. On the day of the accident, the last three sections of pipe were laid. A 2 by 4 had been placed at the end of the pipe and backfilling had started when the crew stopped for coffee. After their break, the laborers and Employee #1 left for another job, while operators of a backhoe and a front end loader resumed backfilling. One operator saw Employee #1 return, although neither saw him leave his vehicle. Apparently, Employee #1 went to mark the top of the 2 by 4 as the end of a water line because this had not been done before the crew took its break. He was leaning over the backhoe tracks to spray paint the board when the vehicle moved. Employee #1 was pulled under the equipment's superstructure and was killed. The loader operator was dumping fill into the trench when he saw Employee #1's legs and radioed the backhoe operator to stop. A can of blue spray paint was found on the ground between the 2 by 4 and the backhoe. Company policy and past practice called for employees to approach a backhoe on the driver's door side, or to signal the operator from a distance and delay approaching until the operator acknowledged the signal. The autopsy results indicated that Employee #1 had no medical or toxicological impairment.

#6 Unloading Trailers

- Mar 2014
- Cedar Rapids IA
- Jacob B. "Jake" Harper, 28, died Friday after steel pipes slipped off of a trailer, struck him and caused fatal injuries

#6 Unloading Trailers

- Oct 2013
- "This employee died when a bundle of rebar he was unloading fell on him”
- The victim, a 61-year-old Vacaville resident was crushed by rebar he was unloading at the 49ers stadium construction site in Santa Clara, the second worker fatality there in four months, authorities said.

#6 Unloading Trailers

- Two fatals getting caught between truck and object.
- Trailer often is not level causing load to roll off
- Load straps release improperly stacked loads.

#6 Unloading Trailers

- April 2013
- A worker with a road crew was hurt on the Jane Addams Memorial Tollway Friday morning.
- A piece of paving equipment slid off the side of a flatbed truck, pinning the worker's legs, according to unconfirmed reports.

#7 Ladder Training

- 1926.1060 requires specific ladder training.
- A general tool box talk will not meet the OSHA requirements.
- Werner has a great ladder safety course

#7 Ladder Training

- Sep 2014
- Providence RI
- The worker was taking down an awning at about 9 a.m. when he fell about two stories and landed on his back.

#7 Ladder Training

- September 2014
- NAPLES, FL
- Authorities say two men died after being electrocuted while they were trimming palm trees in southwest Florida.
- Batten says the men were working on a 30-foot aluminum ladder that slipped and hit a live power line.
- Consider use of liftpods or aerial lifts
- Consider banning aluminum ladders where any powerlines are on the job.

CPWR has a good video showing a simple task that resulted in death in 2009. https://www.youtube.com/watch?v=XXit0ziMIAA

#7 Ladder Training

- Consider providing fall arrest to climb to other levels when stairs are not available
- There are 30+ manufacturer rules that must be covered as part of ladder safety training.

#7 Ladder Training

Walkthrough extensions provide safe access to platforms.

#7 Ladder Training

Consider eliminating any work where employees cannot maintain 100% three point contact.

Background

- Classes: OSHA 10/30 Hour, Incident Investigation, Confined Space, Excavation Safety, Cranes Signaling and Rigging, Fall Protection, Scaffold Safety, and many more
- Services: Mock OSHA Inspections, Site Safety Audits, OSHA Litigation Consultation, Expert Witness, Reducing Worker Compensation Risk, Improving Site safety

- 34 years working with top companies to achieve ZERO injuries
- Certified Safety Professional
- OSHA 1983-2012
- Founding Member of ANSI Z359
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