



High Winds

Weather plays a huge role in our ability to work safely while outdoors. Heat, rain, snow, and ice are often planned for, however, we often forget about the hazards that wind can create. Some examples follow:

- Falls from heights: Wind strong enough to causes a worker to lose balance and fall from an elevated location.
- Loss of control: Wind causing workers or equipment to lose control of materials being handled.
- Increased hazards: Wind exposes workers to additional dangers, even if they are following safety procedures.
- Struck-by incidents due to objects being blown around.
- Slips, trips, and falls due to workers reacting to a falling object blown onto working surfaces.
- Eye injuries due to small particles of flying debris and dust.
- Dropped loads while completing lifts with wind present.
- Objects falling from elevated surfaces and striking others below.
- Dump truck tip-over.

Note to the definition of "high wind": The Occupational Safety and Health Administration normally considers winds exceeding 48.3 kilometers per hour (30 miles per hour) as too high especially if the work involves material handling or employees on elevated work surfaces. OSHA has specific levels of wind speeds to stop operations for different tasks as do all equipment manufacturers.

EXAMPLES OF INCIDENTS INVESTIGATED BY OSHA INCLUDE:

1. A worker died when he was placing waste glass into a container from an elevated position and a gust of wind caught the pane and blew him into the bin 10 feet below.

2. A worker died and 4 others were injured when trusses raked while being installed during high winds.
3. Four workers were killed when a free-standing CMU wall collapsed during high winds from a thunderstorm.
4. A worker died when a building he was working in collapsed during high winds.
5. Three workers died when adding tower sections (to increase the height of a material hoist) when it collapsed under high winds.
6. Wind is the second most common cause for crane accidents worldwide. According to the American National Standards Institute (ANSI), there were 1,125 tower crane accidents reported worldwide between 2000 and 2010, resulting in more than 780 deaths. Exposure to high winds was one of the main factors causing these tragedies, which account for up to 23% of all accidents.

OSHA Standard Subpart V – 1926.968 – Definitions - High wind. A wind of such velocity that one or more of the following hazards would be present:

- The wind could blow an employee from an elevated location.
- The wind could cause an employee or equipment handling material to lose control of the material.
- The wind would expose an employee to other hazards not controlled by the standard involved.

Note to the definition of "high wind": The Occupational Safety and Health Administration normally considers winds exceeding 64.4 kilometers per hour (40 miles per hour), or 48.3 kilometers per hour (30 miles per hour) if the work involves material handling, as meeting tas meeting these criteria, unless the employer takes precautions to protect employees from the hazardous effects of the wind.

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OSHA Standard Subpart CC – Aerial lift Wind Restriction - 1926.1431(k)(8)(i) - When wind speed (sustained or gusts) exceeds 20 mph at the personnel platform, a qualified person must determine if, in light of the wind conditions, it is not safe to lift personnel. If it is not, the lifting operation must not begin (or, if already in progress, must be terminated).

EXAMPLES OF INCIDENTS INVESTIGATED BY OSHA INCLUDE:

1. Preparation:

- Monitor Weather Reports: Continuously check weather conditions and avoid scheduling work at heights on days with high wind forecasts.
- Be Ready for Sudden Gusts: Wind can pick up quickly.
- Secure Structures: Ensure partially built structures are properly supported and braced, and that scaffolding is secured against wind.
- Secure Loose Materials: Store or tie down loose materials and tools that could be blown away. • Avoid roof work or work from high elevations.

2. Staying Safe:

- Avoid Heights: Never work on scaffolds, roofs, or other elevated areas during strong winds. • Secure Tools and Materials: Ensure all loose items are packed away or secured.
- Protect Your Eyes: Wear eye protection to prevent debris from blowing into your eyes.
- Use caution with large materials: handle large, flat materials like plywood with care, as they can easily be caught by the wind.
- Suspend Crane Operations: Cease all crane operations until wind speeds return to safe levels.
- Suspend aerial lift operations.
- Suspend hoist operations & any other operations that have a limited base – remember the “stability triangle.”

3. Best Practices:

- Eliminate Risky Tasks: Avoid tasks that become unsafe in windy conditions.
- Avoid Reacting to Falling Objects: Do not reach for dropped items or a hard hat lost to the wind, especially on elevated surfaces.
- Pause Lifting Operations: Do not conduct lifting operations during high winds. Confirm with your supervisor and safety team when it’s safe to resume.
- Stay Out of the Line of Fire: Be aware of potential danger zones, such as areas near lifted loads, dump trucks, or downwind from blowing dust.

- Consider Alternative PPE: - safety goggles, hard hats with chin straps, face coverings, & wind breakers.
- ### 4. Requirements:
- Preplanning of tasks is critical to ensure a solid start to working safely on a construction site. Weather is a major factor in what tasks can or cannot be done on a particular day. When high winds are going to be present, plan work accordingly. Avoid certain tasks during high wind events, as well as implement extra safeguards to ensure safety during normal job tasks.
- ### 5. Other Precautions:
- Never stand between the edge of an elevated surface and an object being carried, that could become airborne.
 - Secure Materials: everything needs to be tied down against movement in a windstorm. • Ensure that objects on stands are properly supported and can’t become unstable if a wind gust hits.
 - Tightly secure tarps so they cannot be caught by the wind and knock materials or workers from an elevated surface.
 - Ensure that scaffolds and wooden steps are stable in windy conditions.

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