



Wind Turbine Safety

The wind energy industry has been growing worldwide. From new installations to maintenance of existing components on towers, the wind energy industry expects an ongoing need and increase demand for trained workers. Part of that training should be on safety issues specific to the wind energy industry.

Wind power workers are exposed to many hazards and should be properly trained on how to mitigate risk, including:

- Fires (in the nacelle or spread to the ground)
- Falls
- Confined spaces
- Lockout/Tagout
- Crane, derrick and hoist safety
- Electricity and arc flash
- Machine guarding
- Noise
- Dropped tools
- Sudden high winds
- Ice fall

Working at heights, wind power workers must climb inside towers to heights up to 200 feet or more. Once inside the nacelle, they may be in a very confined space. Workers should be in good physical shape for the demands of the job; physical fitness and a good diet are a great start. Prior to starting a climb, workers should take the time to do stretching exercises, confirm safety gear is properly on, tools are securely stowed, and ensure they have a mindset of safety.

Workers engaged in construction of towers fall under the Federal *Occupational Safety and Health Administration's* (Fed/OSHA) requirement for fall protection when exposed to a fall hazard of six feet or more. Maintenance workers fall under OSHA's general industry standards, requiring fall protection when exposed to fall hazards of four feet or more. In both cases, these workers must be protected by one of the following:

- Personal fall arrest system
- Safety net system
- Guard rail system

Wind towers are generally placed in remote areas. Workers should have an emergency action plan in place in the event of an injury within the tower or the nacelle, and for emergencies on the ground. Employers should develop an at-height rescue procedure and have a plan to provide medical help at height.

Inherent risks are common in the construction and maintenance of windmills. A good comprehensive safety plan, employee commitment to safety compliance, proper employee conditioning, and emergency procedures can reduce risk and make the workplace safer.

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