



Wind Turbine Escape and Evacuation (16 hours)

This course is designed to provide the skills needed to work safely at height, competently perform basic individual worker escape and evacuation procedures and to perform simple co-worker rescue. Course can be modified to meet client specific needs or equipment. As rescue is an ever evolving realm, course may be adapted to the introduction of new equipment/technology quickly. The key to student success is their ability to train with realistic scenarios and have the ability to perform multiple iterations with increased hands-on skills. This course is also a valuable learning experience directed at response agencies (Fire Departments and EMS providers). Above listed prerequisites required or can be added to course which will increase course length.

Required course prerequisites listed below.

Course comprises classroom presentation and hands-on field experience.

- Course introductions and objectives
- Company policies/protocols, facility site safety and needs assessment
- Pre planning, mutual aid, scene safety, EMS protocols
- Basic fall protection concepts
- Communication (radios, cell phones, etc.)
- Victim assessment and suspension trauma
- Equipment use and inspection
- Harness use, fitting, inspection
- Rope use and inspection
- Technora rope advantages
- Knots: termination and inline (figure 8 on a bight, running double overhand, butterfly, stopper)
- Sewn termination advantages/requirements
- Vertical lifeline systems (ladders)
- Lanyard climbing (ladders)
- Anchorages
- Automatic descent control devices for personal escape (interior, exterior descents not recommended)
- Automatic descent control devices for lowering co-worker (interior, exterior lowering not recommended)
- Petzl I'D for personal escape
- Petzl I'D for belay
- Petzl I'D for lowering co-worker
- Kong Back-Up and/or Petzl ASAP
- Spec Pak
- Fall recovery (self and co-worker) interior and exterior including nylon rescue ladder use
- Simple pre-built mechanical advantage system use for raising/unweighting
- Simple pre-built mechanical advantage system use in conjunction with Petzl I'D (inline and piggyback)
- Ladder rescue (weighted semi-conscious and unconscious)
- Nacelle rescue (interior lowering, exterior lowering not recommended)
- Hub rescue awareness
- Use of tag lines
- Individual skill checklist
- Written test (25 questions)
- Completion of course based on successful completion of individual skill checklist and written test
- Course completion, evaluations, feedback
- Recommendation of yearly (minimum) training including updates and new technology



Wind Turbine Rescue Escape and Evacuation Course Prerequisites

Each participant shall meet the following prerequisites:

- Fall protection and work positioning systems and safety including lanyard use
- Full familiarity with harness and fall protection climbing system specific to working environment
- Vertical lifeline systems and use specific to working environment (experience climbing)
- Lock out, tag out procedures/protocols specific to working environment
- Confined space entry procedures specific to working environment
- Elevator use and protocols (if applicable)
- Physical and mental ability to work at height
- Medical condition conducive to work at height
- Local EMS availability must be provided for

Site must be safe and appropriate for classroom and field exercises. Noise must be at a reasonable level. Full site safety requirements must be presented to training company and instructors prior to commencement of training. Additionally, local weather conditions can dictate changes in training schedule.

A wind turbine that is out of service or set up as a training prop is optimal for field exercises. Extreme height is not necessary, whereas the configuration of the space is the primary learning need. A nacelle and attached hub on the ground is acceptable as long as a small tower or ladder prop is also available. If these conditions cannot be met, training can be modified to what is available (pending instructor approval) but will not achieve optimal training results for realism and familiarity with working environment.

A minimum of 2 instructors is required for all training. A trained and experienced safety supervisor/manager can fulfill the second instructor need as safety officer in certain cases, determined by training company through consultation with client. A 6:1 student to instructor ratio is minimum. For groups over 12, a 4:1 student to instructor ratio is strongly recommended.