Safety Topic: Fall Protection

Best Practice: Working at Heights – Lattice Towers and Wood Poles

The Electrical Transmission & Distribution Partnership is committed to protecting personnel from falls while working at heights. The Safety at Heights Best Practices address fall hazards associated with, but not limited to, aerial tasks performed while working on wood/steel poles, metal/lattice structures, transformers, vehicles, and associated equipment. The Safety at Heights Best Practices utilize fall protection hierarchy of fall hazard elimination or control of the fall hazard.

The following shall be considered in designing a fall protection solution: elimination or substitution, passive fall protection, fall restraint, fall arrest and administrative controls. First consideration shall be given to the elimination of fall hazards. Where elimination of the fall hazard is not practical, effective control of the fall hazard shall be used at all times.

Best Practice #10: Safety at Heights – Lattice Towers

When working on lattice structures, it is critical that fall hazards are assessed, including:

- a full identification of the tasks to be performed, as well as suitable anchorage points for those tasks;
- use of proper 100 percent Fall Protection Equipment from ascent to descent and throughout the job is utilized; and
- that rescue procedures are proactively addressed.

Fall Protection When Performing Aerial Work on Lattice Structures:

- Climbers shall be competent in the application of all necessary fall protection methods used for the fall hazard mitigation of the tasks that will be performed on a given lattice structure.
- A Fall Hazard Analysis (FHA) shall be completed. As a function of the planning/job site analysis, the following information should be obtained and included in the FHA:
  - Identify tasks to be performed on given lattice structures.
  - Document Client/Owner Fall Protection policies, procedures and hazard analysis as applicable.
  - Identify suitable anchorage points to be used for the tasks to be performed on any given lattice structure.
  - Address rescue considerations and develop appropriate procedures for successful performance of a given rescue technique for varied field conditions.
  - Determine/Identify necessary Fall Protection Equipment (FPE) and/or Work Positioning Equipment (WPE).
  - Determine climber qualification in the use of FPE and/or WPE.
- FPE/WPE shall be inspected and used in accordance with the manufacturer's instructions and guidelines.
- Company policies shall apply when the conditions of this Best Practice cannot be met. Alternative work methods ensuring climber safety shall be identified, communicated to all affected climbers, implemented, and documented as part of the job briefing process.
- Lattice structure climbers shall be trained and competent in the care, use, and inspection of the equipment used to conform to this Best Practice. Climbers must be trained in the selection and safe use of the equipment/system. Training shall be conducted only by qualified trainers.
- Visual inspections shall be performed prior to and during climbing to ensure that the structure is in acceptable condition for the safe execution of the tasks to be performed.
- This Best Practice applies to all climbers, including those who perform rescues on lattice structures.
- The rescue method(s) should be predetermined as early as possible, but no later than during the pre-job briefing. Rescue planning shall consider the timeliness and characteristics of the structure that rescue is being performed on.
- Employers shall address rescue considerations and develop appropriate procedures that will allow successful performance of a given rescue technique for varied field conditions. Climbers shall be qualified in the methods identified to be used for rescue.

Best Practice #11: Safety at Heights – Wood Poles

This Best Practice requires the use of 100 percent Fall Protection Equipment when ascending, descending, and changing positions to ensure employees cannot fall more than two feet. It is also important that each structure be inspected prior to climbing and that rescue procedures are proactively addressed.

OSHA Safe & Sound Week

Fall Protection When Performing Aerial Work on Wood Poles:

- When in the working position, Work Positioning Equipment may be used when rigged such that an employee cannot fall more than two feet.
- When climbing wood poles that have pole steps or other obstructions, the hitch hike climbing method, utilizing the Work Positioning Equipment, may be used to ascend or descend when rigged such that an employee cannot fall more than two feet.
- Wood pole climbers shall be trained and competent in the care, use, and inspection of components used to conform to this Best Practice. Employers should obtain comprehensive training from the manufacturer as to the equipment's proper use (to include “train the trainer”). Employees must be trained in the selection and safe use of the equipment/system. This should include application limits; techniques used for proper adjusting of the equipment, methods of use, inspection, storage of the device and a demonstration of competency of device usage. Training shall only be conducted by qualified trainers. Refresher training shall be provided that will maintain employee's competency in the use of required equipment.
- Prior to climbing any wood pole, an inspection of the pole shall be conducted. All components of the Fall Protection Equipment shall be inspected by the climber (per manufacturers' specifications) to ensure the device is fit for use.
- This Best Practice applies to all climbers, including those who perform pole top rescues on wood poles.
- The rescue method(s) should be predetermined as early as possible, but no later than during the pre-job briefing. Rescue planning shall consider the timeliness, and characteristics of the structure the rescue is being performed on.
- Employers shall address rescue considerations and develop appropriate procedures that will allow successful performance of a given rescue technique for varied field conditions. Climbers shall be qualified in the methods identified to be used for rescue.
- Company policies shall apply when the conditions of this Best Practice cannot be met. Alternative work methods ensuring worker safety shall be identified, communicated to all affected workers, implemented, and documented as part of the job briefing process.

General inspection requirements: Fall protection, fall arrest, and/or work-positioning equipment shall be inspected before use each day to determine that the equipment is in safe a working condition. Any equipment that is not in a safe working condition shall not be used and must be taken out of service. **100% tie off is required when working from a bucket, pole, or steel structure.**

When inspecting body belts, look for:

- Cracks, nicks, distortion, or corrosion
- Loose or worn rivets
- Loose grommets on the waist strap
- 100 percent leather fastening straps
- No worn materials that could affect the safety of the user are present

When inspecting positioning straps, look for:

- Damage to the snaps
- Locking snaps
- Electrical burns
- Damaged rivets
- Elongated holes
- Red warning indicator
- Dry rot

When inspecting body harnesses, look for:

- Manufacturer's markings
- Missing pieces
- Defects or damage
- Alteration
- UV exposure
- Chemical exposure
- Frayed webbing
- Rust on webbing or connection points
- Torn out stitching