

## OSHA Training Toolbox Talk: Potentially Hazardous Effects of Weather on Portable Ladder Safety

[Reference 1910 Subpart D / 1926 Subpart X]

Over time, mountains break down into boulders, and eventually those break down into rocks, and then rocks are slowly reduced to gravel, sand, and silt. This transformation is due primarily to the effects of weather; Wind, rain, and temperature all contribute to reducing a mountain into a pile of dirt. Weather can have detrimental effects on portable ladder use too. So here are a few things to keep in mind to help avoid long and short-term weather-related problems affecting portable ladders.

- **Wet ladders are more slippery than dry ladders; that is obvious.** Therefore your foot is more likely to slip off a ladder rung, especially if the soles of your shoes are muddy. Also the base of your ladder can slip much easier on the ground or other work surface when they are wet.
- **Water also causes ladders to slowly deteriorate.** Metal parts like spreaders, rivets, and other fasteners can slowly corrode when constantly exposed to moisture. And even though corrosion damage may take months or even years to occur, damaged parts lack the strength of the original parts and can eventually bend or break. In addition, warnings and instructional stickers applied to ladders by ladder manufacturers' will often tear or come off when they are exposed to prolonged moisture.
- **Ladders that are allowed to lie in water can become waterlogged.** This primarily affects wooden ladders. And while we probably all recognize that a waterlogged wooden ladder will deteriorate quicker, this condition can also cause what is normally considered a non-conductive ladder to actually conduct electricity. This increases the risk of electrocution if the waterlogged ladder is used while working on or near energized electrical lines or equipment.
- **Combining the effects of water and freezing temperatures can create ice on the ladder or on the bearing surface where the ladder is sitting.** And if you think a wet ladder or work surface is slippery, an icy one can be many times more slippery!
- **All other things being equal, some ladders constantly exposed to direct sunlight will wear out quicker than ones that are not.** That is because the ultraviolet, or UV, light from the sun will slowly deteriorate the fibers in wood and fiberglass ladders over extremely long periods of time. But one other effect of UV rays is that warnings and instructional stickers applied to ladders by manufacturers will eventually fade much quicker and eventually become illegible.
- **Wind gusts can make your ladder - or even you – unintentionally move or fall over.** Depending on the speed of the wind, this might occur whether you are standing on the ladder or not! So avoid using a portable ladder when the wind is gusting at high speeds, and be sure to tie off the top of your extension ladder so that any unexpected wind gust does not cause it to move or fall over.

While these are not the only potentially hazardous effects that weather can have on our portable ladders, they are some of the most common ones that we can try and avoid during use and storage.

Can anyone come up with any additional examples of potentially hazardous effects of weather on our portable ladders? Thank you for your participation, and please be sure to sign your name to the training certification form so you get credit for attending today's training session.