Tips for Situational Awareness to Keep Drilling Jobs Safer

Foundation Drilling is a disruptive process requiring drilling equipment that has the capability to smash, grind, tear and destroy all types of geologic formations in its path. Our drill bits utilize different cutter heads, varying from a small diameter traditional tricone to very large diameter soil and rock augers that allow for fast penetration rates in dense formations. We implement this equipment and tooling all over the world in challenging terrain and geological formations.

We, as an industry, have come to accept that location and drilling methods will present some amount of danger. However, if we know what is dangerous and respect it, we can minimize the possibility for failure that leads to injury or death. Reducing risk or tragedy depends on situational awareness of the entire job. Situational awareness is the employee's full comprehension of the jobsite's location and the job tasks, and the anticipation of what can go wrong when an unknown variable or unwarranted risk is introduced.

The Jobsite Location

Before we can create the proper jobsite, we must consider all manmade obstructions above ground and below ground. Contact your local 811 or other Utility Locate service for all subsurface obstructions and adhere to the safe clearance distances for energized powerlines. Many jobsite accidents occur during rig setup and the first 20 feet of drilling. Electrocution and underground utility strikes are avoidable by following the rules.

The ground conditions or working platform is a potential variable that can present a risk. Drill rigs have a high center of gravity depending on the design and amount of tooling loaded on for the job. Ensure the working platform is adequate to support the drill rig while drilling an moving, and all the auxiliary equipment necessary to complete the installation. Always move (tram) a foundation drill rig with a spotter watching for possible work platform deterioration and other obstacles including employees.

From rattlesnakes in Texas, to bears in Newfoundland, always on the lookout for wildlife. Bees, spiders, rodents, bats, birds, scorpions, wild boar and numerous other wildlife can be dangerous is you are not aware of their presence. Is anyone in your crew allergic to bee stings? Do you know what to do it they are stung? It is essential to know what is on a jobsite, so you can protect yourself, and help a co-worker in need.

Weather is a variable that has become easier to anticipate with modern technology. Regardless of where you are in the world, you should consult the local weather information, to understand what you might expect for the shift. Rain, ice, and snow create hazards for moving and handling equipment. Lightning is a significant concern and having a plan to seek safe shelter is always a top priority.

To a great degree, you can control the footprint and layout of your jobsite environment. Situational awareness depends on creating a consistent layout plan with tooling, casing, reinforcing cages, hoses, pumps, tanks, spoil piles, and the list goes on. Creating jobsite layouts prevents slips, trips and falls, and allows employees to move safely while handling casing or suspended loads. If a catastrophic event happens, the crew has a predetermined escape plan to a safe distance. Inconsistent material layouts can create hazardous situations that can end in severe injury or worse.

The Job Task

A consistent jobsite layout is the best practice. It helps employees better focus on the complex task required to drill and complete a project. When employees must concentrate on a new variable, it increases the possibility of a distraction that can lead to injury. Employees need their full attention on the drilling process. You work around high-speed rotating equipment, rapidly moving percussion devices, and heavy loads suspended and moving overhead. Employees working on these jobsites must maintain high situational awareness by understanding where these risks are at all times.

Over the years, there have been countless stories of hooded sweatshirts, gloves, and other loose-fitting garments getting caught in a rig's rotation — with tragic results. Think about the last time you put your hand on the drill steel or auger stem to remove clay while it was rotating. How many more times do you chance fate before you lose a limb or worse get pulled in and be crushed between the drill steel and mast? If you must dislodge something from the drill steel – STOP rotation, and then proceed. A good driller and helper must work together and use proper communication and procedures every time. NO EXCEPTIONS!

Complacency KILLS! Consider how many times you put yourself in a situation that was unnecessary. Worse yet, how many times have you recognized an issue but did nothing about it. A near miss is any situation that did not result in an injury or damage but had the potential to do so. Remember, we minimize risk by full comprehension of each task at hand. Every time we encounter a near miss, it is one step closer to injury or death.

Our industry has suffered too many tragic circumstances that have affected good people and companies. Often, it is the novice who gets mangled or killed attempting to do what a veteran had done on several previous projects. These situations can be avoided by critically thinking about your situational awareness - and acting on it!