Drilled Shaft Installation Safety Reminders

Your employer must designate a safety supervisor/competent person for each project. Make sure you are aware of who this person is so you know who to ask safety related questions. This competent person is typically the superintendent, foreman or perhaps the drill rig operator.

Make sure you are trained in the safe methods of drilled shaft operations using your company safety manual or training information. Attend all pre-shift safety briefings and weekly safety meetings. Ask questions if you are unsure of any procedures, and identify any unsafe conditions or behaviors, so the issues can be resolved quickly.

Transport drilling equipment on the road and jobsite properly. Perform pre-trip inspections, load and unload equipment correctly, know weights and heights of equipment, secure the load, and ensure safe access and work area stability.

All equipment must be inspected and repaired prior to its use by a competent person. Assist the competent person in this task, for a better understanding of the equipment. Damaged or otherwise faulty equipment or components must be repaired or replaced before drilling activity begins. It is extremely important to constantly inspect the ground conditions to confirm adequate and level support for the drill dig.

Wear the personal protective equipment that you have been issued. PPE such as hard hats, eye and hearing protection, and gloves will protect you from injury, but only if you wear them correctly.

Before any drilling begins, make sure any underground utilities have been physically located. Keep a watchful eye out for overhead obstructions and most importantly - power lines! Keep the equipment and yourself at least 10 feet away from them at all times.

Determine which direction the rig will swing to cast off cuttings. It may be different for each shaft you drill. Set up an exclusion zone to keep employees clear of the spin off area. You must also establish swing radius protection around the drill rig at all times it is drilling.

Watch out for auxiliary equipment such as assist cranes, loaders, backhoes, skid steers, or others that may be working near the drilled shafts. The operator may not see you due to poor visibility from the equipment. Remember if you cannot see the operator’s eyes, they cannot see you! Coordinate all auxiliary equipment operations during shaft installation, to avoid struck by accidents.

Use properly sized rigging for all loads. Do not work under a suspended load. Use tag lines whenever possible.

Drilled shafts six feet (1.8 m) or greater in depth require some form of fall protection at the surface of the shaft. Set up the fall protection system (either handrail or personal fall protection and tie off point) around the shaft and work from the outside. The drill operator is not to drill the shaft without the fall protection device in place. Erect barricades or place a cover over any open shaft that is not completed.
Ensure the concrete truck has adequate access to the shaft. Do not allow adjusting the chute while the truck is in motion. Require that a signalperson guide reversing vehicles at all times. Employees must wear eye protection when pouring concrete. Have eyewash available at all times. If pumping the concrete, make sure all hose connections are sound, safety pinned, and have whip checks in place. One person shall signal the pump operator.

Inspect all electric power cords and tools before use. Do not use damaged or defective tools or cords. Ground Fault Circuit Interrupters (GFCI) must be used when electric power is required.

Do not enter a drilled shaft for any reason until you have been confined space trained and are authorized to do so. The shaft must be cased, and air quality monitoring shall be performed prior to and during shaft entry, a topside observer must attend the shaft at all times, and you must have a written rescue plan. There are no exceptions to this rule.

These are only a few of the many hazards that exist on a drilled shaft project. Never allow yourself and your co-workers to become comfortable with the dangers associated with drilled shaft installation. Remember Safety Starts and Ends With YOU!