

Irrigation Pipe Work Safety

by Judy Kerry

State Compensation Insurance Fund

Irrigation pipes bring water to our agricultural fields, but they can bring danger if they are not installed, moved and maintained properly. Hazards include material handling and transportation, trenching, underground utilities, and most importantly, overhead electrical lines.

Always remain aware of the location and height of overhead electrical lines in your work area, including the installation field and equipment storage and transport areas. When cranes, lifting equipment, or metal irrigation pipes come into contact with electrical lines, there is a serious hazard of electrical shock and death.

Irrigation pipes are usually 30 - 40 feet long; rural overhead electric lines may be as little as 18 feet high. Try to keep pipe lengths horizontal while you are maneuvering them so you don't lift them into a line by mistake. Store equipment and pipe at least 100 feet from power lines and stay at least 10 feet from power lines that carry up to 50,000 volts; use a greater clearance for higher voltages. Use these same precautions whether you are installing new pipe, moving pipe, or lifting and clearing existing systems. (Note that irrigation pipes on wheels and "solid-set" (in-ground) pipes can reduce the likelihood of accidental shock by reducing the need to maneuver the pipe systems.)

Hazards aren't just overhead. Before you dig a pipe installation site, contact the local utility companies to mark the location of all of the underground utilities. Do not dig if there are no markings. When you must dig near marked utilities, use blunt hand digging tools. Watch for hidden underground utilities – if you see wires or pipes sticking out from the ground, investigate before you dig.

When digging trenches to install irrigation pipes, use proper trenching and shoring techniques to safeguard against collapse and engulfment. Mark trench areas clearly. Don't park vehicles near the trench sides where they may cause a collapse. Don't trench more than you can complete and backfill in a day.

When handling irrigation pipes watch out for crush or pinch injuries. Know where your hands and fingers are when you are moving, fitting, or dismantling the pipes. Communicate with your coworkers to coordinate your movements when working as a team. Ensure that equipment loads on tractors and equipment are securely fastened before you transport them. Follow tractor safety guidelines and take care when maneuvering. Remain aware of obstacles and other workers; use a spotter when you cannot easily see to maneuver.

Get training on the procedures and equipment that you will use. Know the emergency procedures and first aid in case there is an accident. Wear the proper clothing to protect you from the sun, insects, and heat and cold stress. Sturdy work gloves and footwear will protect your hands and feet. Use good ergonomics, proper lifting techniques, rest breaks, and task rotation to protect your back and avoid strains and sprains.

Be aware of irrigation pipe hazards on the job and keep your safety in the green zone.