

# Chapter 9 - Irrigation Equipment Safety

The following suggestions are aimed at ensuring the safety of the irrigator as well as preventing damage to his equipment.

1. Read and follow directions in the owner's manual for each piece of equipment, paying particular attention to the safety precautions and features listed. Make sure that all employees also read and understand all directions and precautions.
2. Disconnect electric power before servicing a machine by personally shutting off and locking the master control. Also make sure that everyone is clear of the machine before it is turned back on.
3. Stay away from the equipment during an electrical storm.
4. Protect electric motors from overload, overheating, overvoltage, undervoltage, phase imbalance in three-phase electrical systems, phase failure, low current or high current.
5. Be sure the engines used to power pumps are equipped with safety devices that will stop them before damage occurs from overload, overheating, loss of oil pressure or runaway (if pump becomes disconnected or loses its prime).
6. Be sure all pumps are equipped with devices that will shut off the electric motor or engine if there is a break in the suction or loss of pressure in the main pipeline.
7. To perform overhead maintenance, use a ladder that is sufficiently tall as well as stable.
8. Have qualified service personnel perform any hazardous repair or maintenance.
9. Keep all guards and shields in place, especially those covering power-take-off units.
10. Make sure that service or auxiliary equipment is not in the path of the irrigation system.
11. Be certain that moving irrigation equipment will not contact buildings, power lines, poles, wires, etc.
12. Bury all power lines around the equipment, and clearly mark where they are buried.
13. Keep away from moving parts when equipment is in operation.
14. Stay out of the way of high-pressure water streams, such as end guns.

- 15.** If fuses or circuit breakers keep blowing, don't "correct" by over-fusing. Find the cause.
- 16.** Do not irrigate at air temperatures below 40F. Spraying has a cooling effect, and the water can freeze even though the temperature is above 32F.
- 17.** Periodically check the system for any loose or missing bolts, which could cause collapse of the equipment.
- 18.** Know what to do should an emergency situation occur, and also instruct all employees on what to do.
- 19.** If chemicals have been added to the irrigation- water, avoid exposure to spray drift; and make sure that the spray does not blow past the area of intended operation.
- 20.** Look overhead and note electric lines that are within reach of the long pipes. When lifting and transporting the pipe sections, keep clear of the power lines.