

**567—49.24(455B) Backflow prevention for chemical injection systems for nonpotable water wells.**

**49.24(1) Backflow protection for irrigation.** Where a chemical injection system is connected directly to a water well used for irrigation and that is not used as a potable water supply, a single-check spring-loaded backflow preventer shall be installed between the point of chemical injection on the pump discharge piping and the water well in accordance with the manufacturer's instructions. The check valve shall withstand a minimum hydraulic pressure of 150 psi without leaking. The backflow device shall be provided with the following:

- a. Valving so that water can be drained from the system to prevent freezing.
- b. A vacuum relief valve to prevent backsiphoning of chemicals into the well.
- c. An automatic low-pressure drain at least  $\frac{3}{4}$  inches in diameter, positioned so that when draining occurs liquid will flow away from the well. The low-pressure drain shall be at least six inches above grade. The automatic low-pressure drain shall quickly drain the check valve body of water when operation of the water well pump is discontinued.
- d. A watertight seal around the check valve.
- e. An inspection port four inches in diameter to allow inspection of the operation of the check valve.

**49.24(2) Pump control interconnection.** The water well pump and the chemical injection pump shall be electrically connected so that, when the water well pump stops, the chemical pump will shut off automatically.