

WAC 16-202-1018 What are the requirements for product injection devices? The irrigation water source and application tank must be protected from backflow and from siphonage.

(1) Pressurized injection or injection into a pressurized portion of an irrigation system.

(a) An injection line check valve must be used whenever injection occurs in a pressurized section of an irrigation system or with a pressurized injection system.

(b) The injection line check valve must inject product directly into the irrigation water and must be installed downstream of the irrigation mainline check valve.

(c) The point of injection into an irrigation system cannot be located within ten feet of a wellhead, public waterway, off-farm irrigation supply ditch or conveyance system, or sensitive area.

(d) The injection line check valve mechanism must prevent leakage due to hydraulic head pressure from the application tank and must prevent backflow from the irrigation water source into the supply tank. The injection line check valve must maintain, at a minimum, 10 psi opening (cracking) pressure or adequate opening pressure to prevent gravity flow from the application tank into irrigation water.

(e) In instances where siphoning action induced by an irrigation system could compromise the opening (cracking) pressure of an injection line check valve, a vacuum relief valve must be installed in the irrigation line downstream of the injection point.

(2) Injection into nonpressurized section of an irrigation system.

(a) If injection occurs in a nonpressurized portion of the irrigation system, an air gap or other hydraulic discontinuity must exist between the pressurized or nonpressurized irrigation water source and the point of product injection.

(b) When an air gap is used in conjunction with a public water supply, injection may only occur downstream of the air gap.

(3) Venturi systems.

(a) The chemical injection line must contain either a normally closed solenoid-operated valve connected to the system interlock or a normally closed hydraulically operated valve that opens only when the main water line is adequately pressurized. The valve must be placed on the intake side of the injection pump, immediately adjacent to the application tank.

(b) The chemical injection line between the application tank and the metering device must contain an automatic, quick-closing check valve. The check valve must be placed immediately adjacent to the venturi chemical inlet.

[Statutory Authority: Chapters 15.54, 15.58, 17.21, and 34.05 RCW. WSR 01-23-018, § 16-202-1018, filed 11/9/01, effective 11/9/01.]