Chemigation Safety Devices: Pesticide Label Requirements and U.S. EPA Allowable Alternative Equipment

Adoption of the U.S. EPA Chemigation Compliance Policy

WSDA adopts the U.S. Environmental Protection Agency (U.S. EPA) Interim Final Federal Insecticide, Fungicide, Rodenticide Act (FIFRA) Compliance Program Policy No. 12.7, Enforcement of the Label Improvement Program for Pesticides Applied Through Irrigation Systems (Chemigation), issued on April 11, 1989. FIFRA section 2(ee)(6)[1] allows the Administrator of U.S. EPA to establish policies concerning the enforcement of pesticide label requirements provided those policies remain consistent with the purposes of federal law. FIFRA does not grant States the same authority. Therefore, WSDA will implement the interim policy until it is amended or rescinded by the Administrator of U.S. EPA.

Alternative Chemigation Safety Devices

U.S. EPA Pesticide Registration (PR) Notice 87-1, the Label Improvement Program for Chemigation, requires pesticide registrants to reference backflow safety devices on the labels of agricultural pesticides that are intended for application through irrigation systems to protect ground water from pesticide contamination. As a result of information received after the implementation of PR Notice 87-1[2] on April 30, 1988, U.S. EPA approved a list of alternative chemigation safety equipment that could be used in the place of specific equipment as required by pesticide labeling. U.S. EPA will not take an enforcement action under FIFRA section 12(a)(2)(G) against a person for using chemigation equipment that is not specified on the pesticide label if it is identified on a current list of comparable systems as issued by U.S. EPA's Office of Pesticide Programs. Any chemigation equipment that is required on pesticide product labeling but has no listed alternative(s) is still required as a component of the chemigation system. On May 30, 1991, Interim Final Program Policy 12.7 was extended indefinitely. The original equipment required in PR Notice 87-1 and its corresponding alternative(s) are listed below:

[1] FIFRA section 2(ee)(6): The term "to use any registered pesticide in a manner inconsistent with its labeling" means to use any registered pesticide in a manner not permitted by the labeling, except that the term shall not include any use of a pesticide in a manner that the Administrator determines to be consistent with the purposes of FIFRA.

[2] U.S. EPA Pesticide Registration Notices provide instructions to pesticide registrants concerning registration issues, including required label language. PR Notice 87-1 was issued on March 11, 1987.

Original Device

Functional normally closed, solenoid-operated valve located on the intake side of the injection pump.

Alternative Device 1

Functional spring-loaded check valve with a minimum of 10 psi cracking pressure. The valve must prevent irrigation water under operating pressure from entering the pesticide injection line and must prevent leakage from the pesticide supply tank on system shutdown. This valve must be constructed of pesticidally resistant materials. [Note: This single device can substitute for both the solenoid-operated valve and the functional, automatic, quick closing check valve in the pesticide injection line.]

Alternative Device 2

Functional normally closed hydraulically operated check valve. The control line must be connected to the main water line such that the valve opens only when the main water line is adequately pressurized. This valve must prevent leakage from the pesticide supply tank on system shutdown. The valve must be constructed of pesticidally resistant materials.

Alternative Device 3

Functional vacuum relief valve located in the pesticide injection line between the positive displacement pesticide injection pump and the check valve. This alternative is appropriate for only those chemigation systems using a positive displacement pesticide injection pump and is not for use with venturi injection systems. This valve must be elevated at least 12 inches above the highest fluid level in the pesticide supply tank and must be the highest point in the injection line. The valve must open at 6 inches water vacuum or less and must be spring loaded or otherwise constructed such that is does not leak on closing. It must prevent leakage from the pesticide supply tank on system shutdown. The valve must be constructed of pesticidally resistant materials.

Original Device

Functional main water line check valve and main water line low pressure drain.

Alternative Device 1

Gooseneck pipe loop located in the main water line immediately downstream of the irrigation water pump. The bottom side of the pipe at the loop apex must be at least 24 inches above the highest sprinkler or other type of water emitting device. The loop must contain either a vacuum relief or combination air and vacuum relief valve at the apex of the pipe loop. The pesticide injection port must be located downstream of the apex of the pipe loop and at least 6 inches below the bottom side of the pipe at the loop apex.

Original Device

Positive displacement pesticide injection pump.

Alternative Device 1

Venturi systems including those inserted directly into the main water line, those installed in a bypass system, and those bypass systems boosted with an auxiliary water pump. Booster or auxiliary water pumps must be connected with the system interlock such that they are automatically shut off when the main line irrigation pump stops, or in cases where there is no main line irrigation pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Venturies must be constructed of pesticidally resistant materials. The line from the pesticide supply tank to the venturi must contain a functional, automatic, quick closing check valve to prevent the flow of liquid back toward the pesticide supply tank. This valve must be located immediately adjacent to the venturi pesticide inlet. This same supply line must also contain <u>either</u> a functional normally closed solenoid-operated valve connected to the system interlock <u>or</u> a functional normally closed hydraulically operated valve which opens only when the main water line is adequately pressurized. In bypass systems as an option to placing both valves in the line from the pesticide supply tank, the check valve may be installed in the bypass immediately upstream of the venturi water inlet <u>and</u> either the normally closed solenoid or hydraulically operated valve may be installed immediately downstream of the venturi water outlet.

Original Device

Vacuum relief valve.

Alternative Device 1

Combination air and vacuum relief valve.