



University of Arkansas Division of Agriculture

An Agricultural Law Research Project

## **Application Restrictions Statutes & Regulations**

**South Dakota**

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## Application Restrictions

### STATE OF SOUTH DAKOTA

#### **1) S.D. Codified Laws, §§ 34A-2A et seq.; ARSD §§ 74:02:09 et seq.**

*The statutes and Constitution are current through the 2018 regular and special legislative sessions. The statutes are subject to changes by the South Dakota Legislative Research Council.*

#### **1) S.D. Codified Laws, §§ 34A-2A et seq.; ARSD §§ 74:02:09 et seq.**

##### **§ 34A-2A-1. Definitions.**

Terms used in §§ 34A-2A-1 to 34A-2A-5, inclusive, mean:

- (1) “Antipollution devices,” any mechanical equipment used to reduce hazard to the environment in cases of malfunction or shutdown of chemigation equipment during chemigation and may include, but is not limited to, interlock, waterline check valve, chemical line closure device, vacuum relief device and automatic low pressure drain;
- (2) “Chemical,” any fertilizer or pesticide;
- (3) “Chemigation,” any process whereby chemicals are added to irrigation water applied to land or crop or both through an irrigation system;
- (4) “Fertilizer,” any formulation or product used as a plant nutrient which is intended to promote plant growth and contains one or more plant nutrients;
- (5) “Irrigation system,” any device or combination of devices having a hose, pipe or other conduit which connects directly to any source of ground or surface water, through which water or a mixture of water and chemicals is drawn and applied to land or crop or both. The term does not include any handheld hose sprayer or other similar device which is constructed so that an interruption in water flow automatically prevents any backflow to the water source;
- (6) “Pesticide,” any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pests, or any substance or mixture of substances intended for use as a plant regulator, defoliant or desiccant;
- (7) “Chief engineer,” the officer employed by the Department of Environment and Natural Resources pursuant to § 46-2-3.

**§ 34A-2A-2. Failure to comply with established standards and requirements – Criminal penalty – Civil penalty.**

Any person who uses an irrigation system for chemigation who fails to comply with the standards and requirements established pursuant to § 34-2A-3 is guilty of a Class 2 misdemeanor. In addition, a civil fine of not more than five hundred dollars may be imposed for the violation. Each day of noncompliance is a separate violation. In addition, the water management board may suspend or cancel any water permit or license pursuant to § 46-1-12.

**§ 34A-2A-3. Rules – Chemigation equipment standards – Antipollution device.**

The water management board, with the assistance of the chief engineer, shall establish, by rules promulgated pursuant to chapter 1-26:

- (1) Chemigation equipment standards, performance standards and installation requirements; and
- (2) Requirements regarding the use and location of antipollution devices.

The requirements and standards established pursuant to this section may provide for additional protection if chemigation involves the application of a pesticide, rather than a fertilizer.

**§ 34A-2A-4. Entry upon land to determine compliance.**

The chief engineer may enter upon the land of a person as provided in § 46-2-19 for the purpose of determining whether such person is in compliance with the provisions of §§34A-2A-1 to 34A-2A-4, inclusive, and any rules promulgated pursuant to §§ 34A-2A-1 to 34A-2A-4, inclusive.

**§ 34A-2A-5. Repealed.**

**74:02:09:01. Definitions.**

Terms defined in SDCL 34A-2A-1 have the same meaning when used in this chapter. In addition, terms used in this chapter mean:

- (1) "Check valve," a device that provides a positive (absolute) closure which prohibits the flow of material or liquid in the opposite direction of that desired when operation of the irrigation system pumping plant or chemical injection unit fails or is shut down;

(2) "Interlock," the arrangement or interconnection of the irrigation pump, chemical injection units, and other pumps or supply tanks so that total shutdown of the system will occur if any component malfunctions or fails;

(3) "Low-pressure drain," a self-activating device to drain that portion of an irrigation pipeline or conduit whose contents could potentially enter the water supply when operation of the irrigation system pumping plant fails or is shut down;

(4) "Vacuum relief valve," a device that automatically relieves or breaks vacuum in an irrigation pipeline or conduit due to system failure or shutdown.

#### **74:02:09:02. Requirements for chemigation users.**

Persons applying any chemical through an irrigation system shall do the following for each system:

(1) Provide the following information to the chief engineer prior to using chemigation:

(a) The water permit or right number issued pursuant to SDCL 46-1-14;

(b) The name, address, and telephone number of the water permit or right owner;

(c) The name, address, and telephone number of the system operator if not the same as the water permit or right owner; and

(d) The legal description of the lands on which the system is located;

(2) Install and maintain functional antipollution devices; and

(3) Indicate to the chief engineer on the annual irrigation questionnaire required by § 74:02:01:14.02 whether any chemical is applied.

#### **74:02:09:03. Required mechanical devices – Specifications.**

Any irrigation distribution system, except an open discharge system as provided in § 74:02:09:04, through which chemigation is performed shall be equipped with the mechanical devices specified in §§ 74:02:09:05 to 74:02:09:10, inclusive.

The equipment shall be installed in accordance with the manufacturer's specifications and at the location specified. The equipment shall be designed and constructed of materials suitable for chemigation, including chemical compatibility, as specified on the chemical label or by the equipment manufacturer.

#### **74:02:09:04. Open discharge systems exempted.**

The provisions of § 74:02:09:03 do not apply to an open discharge system. An open discharge system is an irrigation pump discharge with an air gap. An air gap is a physical separation between the free-flowing discharge end of a water pipeline and an open receiving vessel. An air gap meets the requirements of this section if the end of the

discharge pipe is located above the topmost rim of the receiving vessel, if the distance of the separation is greater than one inch, and if the air gap is located between the irrigation pump discharge outlet and the point of chemical injection.

**74:02:09:05. Irrigation pipeline check valve.**

The irrigation pipeline check valve shall be located in the pipeline between the irrigation pump and the point of chemical injection into the irrigation pipeline, as illustrated in Appendix A at the end of this chapter.

**74:02:09:06. Vacuum relief valve.**

The vacuum relief valve shall be located on the top of the pipeline between the irrigation pump and the irrigation pipeline check valve, as illustrated in Appendix A at the end of this chapter. The valve shall be sized in accordance with the manufacturer's specifications.

**74:02:09:07. Automatic low pressure drain.**

The low-pressure drain shall be located on the bottom of the horizontal pipeline between the irrigation pump and the irrigation pipeline check valve, as illustrated in Appendix A at the end of this chapter.

The valve shall be sized in accordance with the manufacturer's specifications. The drain shall have an orifice of at least three-quarter inch diameter. The drain shall not extend into the horizontal pipe beyond the inside surface of the bottom of the pipe and shall be at least two inches above grade.

When the pipeline water flow stops, the drain must automatically open. A tube, pipe, or similar conduit shall be used to discharge the solution at least 20 feet from the irrigation water source. The solution shall be contained and prevented from entering the water supply source.

**74:02:09:08. Chemical injection line check valve.**

The chemical injection line check valve shall be located between the point of chemical injection into the irrigation pipeline and the chemical injection pump, as illustrated in Appendix A at the end of this chapter. Unless a positive displacement pump is utilized, a second chemical injection line check valve shall also be located between the point of chemical injection into the irrigation pipeline and chemical injection pump. The valve or valves shall be designed to have a minimum opening (cracking) pressure of ten pounds per square inch.

**74:02:09:09. Functional systems interlock.**

The irrigation pump and the chemical injection pump shall be interlocked so that if the irrigation pump stops, the injection pump will also stop.

**74:02:09:10. Inspection port.**

The inspection port shall be located on the pipeline between the irrigation pump and the irrigation pipeline check valve, as illustrated in Appendix A at the end of the chapter. The vacuum relief valve connection may serve as the inspection port.

The inspection port or viewing device shall be situated in such a manner that the inlet to the low-pressure drain can be observed. A minimum four-inch orifice or viewing area is required.

**74:02:09:11. Maintenance of equipment.**

The operator of the irrigation system shall keep the system in good operating condition and shall ensure that the chemigation and safety equipment is operating properly before injecting chemical into the irrigation system.

**74:02:09:12. Calibration.**

The operator of the irrigation system shall calibrate the system prior to starting the injection of chemical into the irrigation system.

**74:02:09:13. Product label.**

The operator of the system shall follow all requirements on the chemical product label.

**74:02:09:14. Posting.**

The operator shall post warning signs as specified on the label of the chemical product being used at the time of application.

**74:02:09:15. Reporting of spills, accidents, and system malfunctions.**

The operator of a chemigation system shall report immediately to the chief engineer through the South Dakota division of emergency management's 24-hour telephone number, (605) 773-3231, and to local agencies as prescribed by local emergency planning committees all spills, accidents, system malfunctions, or other situations involving actual or potential contamination of either groundwater or surface water.

**74:02:09:16. Variance.**

The operator of a chemigation system may request a variance from requirements of this chapter from the chief engineer when irrigation system engineering design problems are encountered. The chief engineer may grant a variance and approve equipment which

provides protection to ground and surface water equivalent to that provided by these rules.