

NEBRASKA ADMINISTRATIVE CODE

NEBRASKA DEPARTMENT OF ENVIRONMENT AND ENERGY

TITLE 195

CHEMIGATION REGULATIONS

Effective:

April 19, 2020

NEBRASKA DEPARTMENT OF ENVIRONMENT AND ENERGY

TITLE 195 – CHEMIGATION REGULATIONS

TABLE OF CONTENTS

<b><u>Code Section</u></b>	<b><u>Subject or Title</u></b>	<b><u>Enabling Legislation</u></b> <b><u>Neb. Rev. Stat.</u></b>
Chapter 1	Permits, Applications, Certification, Duties of Permitholder	§§ 46-1120, 46-1136
Chapter 2	District Responsibilities	§ 46-1136
Chapter 3	Equipment; Standards, Installation, Maintenance	§§ 46-1117, 46-1121(2), 46-1126(2), 46-1138
Appendix I	Leakage Test	

## NEBRASKA ADMINISTRATIVE CODE

### Title 195 - CHEMIGATION REGULATIONS

#### Chapter 1 - PERMITS, APPLICATIONS, CERTIFICATION, DUTIES OF PERMITHOLDER

##### 001 Definitions.

001.01 Relevant definitions are located in Neb. Rev. Stat. §§ 46-1104 through 46-1116.01.

001.02 Restricted use pesticide is defined in Neb. Rev. Stat. §2-2624(38) of the Pesticide Act.

001.03 Accident means the release of a chemical by spill, leak, faulty or damaged equipment, or similar instance, onto land or into waters of the state in a quantity greater than permitted by the product label.

002 Applications. In addition to the requirements of Neb. Rev. Stat. § 46-1120, the following information is to be included with any initial or renewal application for a permit required by Neb. Rev. Stat. §§46-1117 and 46-1119.

002.01 Telephone number of applicant.

002.02 Calendar year for which application is being made.

002.03 Whether the application is for an initial, renewal or emergency permit.

002.04 The name(s) of the certified chemigation applicator(s), their certification number and the expiration date of their certification.

002.05 Whether the chemical injection equipment to be used is stationary or portable.

002.06 Signature of the permit applicant and date of signing. The signature must be that of the proposed permitholder or a person holding power of attorney from the applicant.

002.07 If the application is for a renewal permit, the applicant is to list the names and estimated amounts of all the chemicals that were used in the chemigation system the previous year.

003 Transferability. Permits are not transferrable.

004 Subsurface System. A person is hereby authorized by rule to inject chemicals for maintenance of a subsurface drip irrigation system once each calendar year, provided:

004.01 The system is equipped with an irrigation pipeline check valve: and

004.02 The system is authorized under Title 122 – Rules and Regulations for Underground Injection and Mineral Production Wells: and.

004.03 Any chemical that is injected is done so in accordance with label restrictions.

005 Posting. Signs must be posted on chemigated fields when a restricted use pesticide or a chemical for which the label requires posting is used. The signs are to meet the following requirements:

005.01 Posted at each usual point of entry into a treated area and at the point of chemical injection if located outside the treated area. Each sign is to be posted in such a manner that it is clearly visible and legible.

005.02 Contain the words “KEEP OUT, CHEMICAL APPLICATION THROUGH IRRIGATION SYSTEM”.

005.03 The lettering clearly contrasts with the background and the letters are two and one-half inches in height.

005.04 Posted and maintained during the chemigation period and until the end of reentry period as specified by the chemical label. The sign will be posted no sooner than 48 hours prior to the start of chemigation and be removed, covered, or otherwise made illegible, no later than 48 hours after the end of reentry period.

006 Accident Reporting. Notification of a suspected or actual accident will be made by telephone to the Department and the appropriate district during office hours, from 8 a.m. to 5 p.m., Monday through Friday. After hours and holidays, reports will be made to the Nebraska State Patrol. All information known about the accident at the time of discovery is to be included, such as time of occurrence, quantity and type of material, location, and any corrective or cleanup actions presently being taken.

006.01 The applicator or permitholder will supply any additional information requested in the course of the investigation regarding the amount and type of substance(s) involved, the well and equipment involved, and information the applicator or permitholder would reasonably be expected to know.

007 Investigation and Remediation. The procedures outlined in Title 118, - Ground Water Quality Standards and Use Classification, Appendix A, the Ground Water Remedial Action Protocol will apply to the investigation and remedial action for releases and groundwater contamination associated with chemigation systems. The remedial action workplan is to be carried out by the permitholder under the supervision of the Department or the district.

008 Certifications. Any person who has a certification revoked pursuant to Neb. Rev. Stat. § 46-1129.01 will be afforded an opportunity for a fair hearing as provided in Neb. Rev. Stat. §81-1507(2)(3). The hearing will be held upon written application to the director within thirty days

after receipt of the notice from the director of such revocation. The hearing will be considered conducted as a contested case subject to Title 115, Rules of Practice and Procedure.

Enabling Legislation: Neb. Rev. Stat. §§ 46-1120, 46-1136

## NEBRASKA ADMINISTRATIVE CODE

### Title 195 - CHEMIGATION REGULATIONS

#### Chapter 2 - DISTRICT RESPONSIBILITIES

001 Fees. The district will forward the fees for the first half of the calendar year to the Department by September 1 of the calendar year and the fees for the last half of the calendar year by March 1 of the following year.

002 Annual Reports. The district will submit its annual report to the Department by March 1 of each year. In addition to the statutory requirements, the report will include:

002.01 The number of chemigation system inspections made by the district at each permitted injection site and whether the inspections were initial inspections, for equipment replacement or repair, or routine monitoring; and

002.02 The name of all chemicals and estimated amounts used in chemigation systems within the district the previous year.

003 Retention. The district is to maintain each application or the information contained in the application for a period of five years and will provide such information to the Department upon request.

004 Special Permits. The district will provide the following information, at a minimum, to the Department when seeking a determination on a special permit as set forth in Neb. Rev. Stat. § 46-1117.01:

004.01 Name, address and telephone number of the applicant.

004.02 Legal description of the system location.

004.03 U.S. Geological survey map showing the system layout topographically with the location and elevation of existing equipment and injection location indicated.

004.04 Location, nominal diameter and length of all pipe in the irrigation distribution system.

005 Equipment. If the district finds that replaced or altered equipment does not comply with the standards set forth in this Title, the permit is to be suspended until compliance is demonstrated and approval for operation is given by the district.

Enabling Legislation: Neb. Rev. Stat. § 46-1136

## NEBRASKA ADMINISTRATIVE CODE

### Title 195 - CHEMIGATION REGULATIONS

#### Chapter 3 - EQUIPMENT; STANDARDS, INSTALLATION, MAINTENANCE

001 Equipment. Any irrigation distribution system, except an open discharge system, through which chemigation is performed is to be equipped with the mechanical devices specified in paragraphs 002 through 007 of this Chapter. The equipment is to be installed in accordance with the manufacturer's specifications and at the location specified. This will not be construed to prevent the use of portable chemigation equipment if such equipment meets the requirements of this chapter.

002 Irrigation pipeline check valve. The check valve is to be capable of preventing a mixture of water and chemical from draining or siphoning back into the irrigation water source. It is to be located in the pipeline between the irrigation pump and the point of chemical injection into the irrigation pipeline.

002.01 Existing irrigation distribution systems which, as of July 1, 1987 are equipped with a properly located check valve will be considered in compliance, until repaired or replaced, if the valve provides a watertight seal against reverse flow.

002.02 Irrigation distribution systems which are not equipped with a check valve or contain a check valve which after repair cannot meet the requirement in 002.01, are to be equipped with a check valve as specified in Chapter 3, 008.

002.03 For check valves manufactured or assembled after July 1, 1987, the manufacturer of the valve assembly is to provide verification to the director that the valve model has been tested and certified by an independent laboratory as meeting the criteria specified in Appendix I.

002.04 All check valves installed on an irrigation distribution system after January 1, 1988, are to be models certified to the director as specified in 002.03 above.

003 Vacuum relief valve. The vacuum relief valve is to be located on the pipeline between the irrigation pump and the irrigation pipeline check valve. It is to be capable of preventing the creation of a vacuum when the water flow stops. If the valve connection will also serve as the inspection port, the permitholder will ensure removal of the valve at the time of inspection.

004 Inspection port. The inspection port or other viewing device is to be located on the pipeline between the irrigation pump and the irrigation pipeline check valve.

004.01 The inspection port or viewing device is to be situated in such a manner that the inlet to the low pressure drain can be observed.

004.02 A minimum four-inch diameter orifice or viewing area is required for systems without an existing port or device after January 1, 1988.

005 Low-pressure drain. The low-pressure drain is to be located on the bottom of the horizontal pipe between the irrigation pump and the irrigation pipeline check valve. Its purpose is to drain any mixture of water and chemical away from the irrigation water source.

005.01 The drain is to be constructed of corrosion resistant material or otherwise coated or protected to prevent corrosion;

005.02 The drain is to have an orifice of at least three-quarter inch diameter and is not to extend into the horizontal pipe beyond the inside surface of the bottom of the pipe; and

005.03 When the pipeline water flow stops, the drain will automatically open. A tube, pipe or similar conduit is to be used to discharge the solution at least twenty feet from the irrigation water source.

006 Chemical injection line check valve. The chemical injection line check valve is to be located between the point of chemical injection into the irrigation pipeline and the chemical injection pump.

006.01 The valve is to be constructed of chemically resistant materials;

006.02 The valve is to be designed to prevent irrigation water under operating pressure from entering the chemical injection line; and

006.03 The valve is to be designed to have a minimum opening (cracking) pressure of ten psi. When the chemical injection pump is shut down, the valve must prevent any leakage from the chemical supply tank.

006.04 As an alternative to the minimum opening pressure requirement in 006.03 above, a vacuum relief valve may be placed in the injection line between the chemical injection line check valve and chemical injection pump. The vacuum relief valve is to be constructed of chemically resistant materials, is to open at atmospheric pressure, is to be at an elevation greater than the highest part of the chemical supply tank and is also to be the highest point in the injection line.

007 Simultaneous interlock device. The irrigation pumping plant and the chemical injection pump are to be interlocked so that if the pumping plant stops, the injection pump will also stop.

008 Replacement equipment is to meet the requirements of this Chapter, and in the case of irrigation pipeline check valves, will meet the following minimum requirements:

008.01 The valve body and all components will be constructed of corrosion resistant materials or otherwise coated or protected to prevent corrosion;

008.02 The valve will contain a sealing mechanism designed to close prior to or at the moment water ceases to flow in the downstream direction. This mechanism will be either



diaphragm-actuated by hydraulic line pressure, spring loaded or weight loaded to provide a watertight seal against reverse flow;

008.03 The valve will be designed to meet the leakage tests specified in Underwriters Laboratory, Inc., Standard UL 312, Chapter 16, Leakage Test, page 11, dated May 22, 1984. (Appendix I).

008.04 All moving components of the valve will be designed to prevent binding, distortion or misalignment during water flow; and

008.05 The valve will be designed to allow for easy repair and maintenance, including removal from the pipeline if required to perform such work.

009 Maintenance. The equipment required in these rules and regulations is to be maintained in working condition during all times of chemigation. When required, the equipment is to be repaired to its originally designed condition.

Enabling Legislation: Neb. Rev. Stat. §§ 46-1127, 46-1136

## Appendix I

### Leakage Test

1. A check valve must withstand for 1 minute, without leakage at joints or at the valve seat, an internal hydrostatic pressure of two times the rated working pressure of the valve. Slight weeping of water at the valve seat is acceptable for metal-to-metal seats. Leakage past clappers with, or in contact with, resilient seats, is not acceptable.
2. For the purposes of the test, “slight weeping” is defined as leakage not exceeding 1 fluid ounce per hour (0.008 mL/ sec) per inch (25.4 mm) of nominal valve size.
3. A Check valve must withstand for 16 hours, without leakage at the valve seat, an internal hydrostatic pressure equivalent to the head of a column of water 5 feet (1,5 m)high retained within the downstream portion of the valve body. No leakage may occur as evidence by wetting of paper placed beneath the valve assembly. This test is to be conducted with the valve in both the horizontal and vertical position if intended for such use.