

WSR 25-22-066

PERMANENT RULES

DEPARTMENT OF AGRICULTURE

[Filed October 31, 2025, 9:15 a.m., effective December 1, 2025]

Effective Date of Rule: Thirty-one days after filing.

Purpose: This rule-making order amends chapter 16-202 WAC, Application of pesticides and plant nutrients through irrigation systems, by:

Expanding and clarifying provisions for the use and approval of alternative technologies, including remote monitoring systems, in chemigation and fertigation systems when they meet or exceed established safety and environmental protection standards. The existing rules are performance-based and recognize that alternative technologies may be used if they meet or exceed established safety and environmental protection standards. However, the current language lacks allowances for advancements in technology, specifically remote monitoring. As agricultural operations increasingly adopt advanced monitoring and control systems, there is a clear need for provisions that both encourage innovation and ensure safeguards.

Consolidating duplicated requirements for chemigation and fertigation. Currently, chapter 16-202 WAC contains nearly identical requirements for both chemigation and fertigation operations in separate sections. This duplication can lead to confusion among industry, increase the risk of inconsistent interpretation or enforcement, and make the regulations needlessly complex. By consolidating these overlapping provisions, this amendment aims to create a streamlined, user friendly set of standards that are easier to understand and follow, while also reducing the administrative burden for both industry and the Washington state department of agriculture (WSDA).

Removing outdated/redundant certification. The current rule allows for noncertified applicators to perform limited chemigation tasks as long as they have a specific, limited certification by WSDA to perform chemigation tasks. The proposed amendment removes reference to this limited certification that is obsolete under current Washington law. This change aligns chapter 16-202 WAC with chapters 17.21 and 15.54 RCW, which allow only WSDA licensed certified applicators to perform chemigation operations. By removing references to outdated or redundant certification pathways, this amendment will provide clear guidance about the required qualifications to perform regulated activities.

Replacing "American Society of Agricultural Engineers (ASAE)" standards with that organization's current name "American Society of Agricultural and Biological Engineers (ASABE)." This amendment replaces references to "American Society of Agricultural Engineers (ASAE)" standards with the organization's current name "American Society of Agricultural and Biological Engineers (ASABE)." The American Society of Agricultural Engineers changed its name to the American Society for Agricultural and Biological Engineers in 2005 to reflect the importance of biology in the profession.

Citation of Rules Affected by this Order: New WAC 16-202-100, 16-202-110, 16-202-200, 16-202-210, 16-202-220, 16-202-230, 16-202-240, 16-202-250, 16-202-260, 16-202-270, 16-202-300, 16-202-310, 16-202-315, 16-202-320, 16-202-325, 16-202-330, 16-202-335, 16-202-340, 16-202-345, 16-202-350, 16-202-355, 16-202-360, 16-202-370, 16-202-400, and 16-202-410; and repealing WAC 16-202-1001, 16-202-1002, 16-202-1003, 16-202-1004, 16-202-1005,

16-202-1007, 16-202-1008, 16-202-1009, 16-202-1010, 16-202-1011,
 16-202-1012, 16-202-1013, 16-202-1014, 16-202-1015, 16-202-1016,
 16-202-1017, 16-202-1018, 16-202-1019, 16-202-1020, 16-202-1021,
 16-202-1022, 16-202-1023, 16-202-1024, 16-202-2001, 16-202-2002,
 16-202-2003, 16-202-2004, 16-202-2005, 16-202-2006, 16-202-2007,
 16-202-2008, 16-202-2009, 16-202-2010, 16-202-2011, 16-202-2012,
 16-202-2013, 16-202-2014, 16-202-2015, 16-202-2016, 16-202-2017,
 16-202-2018, 16-202-2019, 16-202-2020, and 16-202-2021.

Statutory Authority for Adoption: RCW 17.21.030, 15.58.040(2),
 and 15.54.800(2).

Adopted under notice filed as WSR 25-16-018 on July 25, 2025.

Changes Other than Editing from Proposed to Adopted Version: Due
 to some confusion expressed by stakeholders during the public comment
 period, WAC 16-202-260 (1)(d) was edited for clarity (nonsubstantial
 changes) to ensure that the requirements regarding how an application
 tank must be managed and serviced is easily understood and enforced.

Number of Sections Adopted in Order to Comply with Federal Stat-
 ute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0,
 Amended 0, Repealed 0; or Recently Enacted State Statutes: New 0,
 Amended 0, Repealed 0.

Number of Sections Adopted at the Request of a Nongovernmental
 Entity: New 25, Amended 0, Repealed 44.

Number of Sections Adopted on the Agency's own Initiative: New 0,
 Amended 0, Repealed 0.

Number of Sections Adopted in Order to Clarify, Streamline, or
 Reform Agency Procedures: New 25, Amended 0, Repealed 44.

Number of Sections Adopted using Negotiated Rule Making: New 0,
 Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed
 0; or Other Alternative Rule Making: New 0, Amended 0, Repealed 0.

Date Adopted: October 31, 2025.

Derek I. Sandison
 Director

RDS-6472.2

PART 1
GENERAL PROVISIONS ((FOR CHEMIGATION OPERATIONS))

NEW SECTION

WAC 16-202-100 Purpose. The purpose of this chapter is to es-
 tablish standards for chemigation and fertigation that are protective
 of existing and future uses of surface water and groundwater quality.

NEW SECTION

WAC 16-202-110 Definitions. The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

(1) "Air gap" means an unobstructed physical separation between the free-flowing discharge end of a water supply and the overflow rim of an open or nonpressurized receiving vessel. The separation must be at least four times the diameter of the supply pipe measured vertically from the overflow rim of the receiving vessel, and in no case be less than 25 mm, or 1-inch.

(2) "Alternative technology" means any device or concept that meets the performance standards contained in this chapter.

(3) "Antipollution safety device" means any equipment or device effectively designed, constructed, and maintained that is used in the event of malfunction or shutdown to prevent backflow of a chemical or treated water into the water supply, or to reduce human exposure or hazard to the environment. Equipment or devices may include, but are not limited to, the irrigation line check valve, vacuum-relief valve, low-pressure drain, inspection port, metering device, chemical injection closure device, and system interlock.

(4) "Application depth" means the amount of irrigation water applied to a given unit area during an irrigation set and is usually expressed in inches or gallons.

(5) "Application season" means the period during which product is injected into an irrigation system for crop protection, plant growth, or soil preparation.

(6) "Application tank" means a product container and appurtenances used for the storage of product that is dedicated for use with and functionally connected to an irrigation system.

(7) "Applicator" means any certified applicator or anyone who is working under the direct supervision of a certified applicator.

(8) "Approved backflow prevention assembly" means a reduced pressure backflow assembly, reduced pressure detector assembly, double check valve detector assembly, or double check valve assembly of a make, model, and size that is approved by the department of health pursuant to WAC 246-290-490.

(9) "Approved reduced pressure backflow assembly or reduced pressure detector assembly" means backflow prevention assemblies of make, model, and size approved by the department of health pursuant to WAC 246-290-490.

(10) "Aquaculture" means the cultivation of water-based plants or animals.

(11) "Backflow" means the reversal of fluid flow due to backpressure or back-siphonage.

(12) "Backflow prevention device" or "backflow safety device" means antipollution safety devices that prevent the flow of water from the irrigation water distribution system back to the water source or to the product source.

(13) "Barometric loop" or "gooseneck" means a raised section of pipe where the bottom of the loop is at least two feet above the highest water emitting device or any portion of the irrigation application system which has a vacuum-relief valve installed on the top of the loop.

(14) "Certified applicator" means any individual who is licensed as a commercial pesticide applicator, commercial pesticide operator, public operator, private-commercial applicator, demonstration and re-

search applicator, or certified private applicator, or any other individual who is certified by the director to use or supervise the use of any pesticide that is classified by the EPA or the director as a pesticide for use in a chemigation application.

(15) "Check valve" means a certified device designed and constructed to provide automatic, quick-acting, and absolute closure that creates and maintains a watertight seal. The device prevents flow in the opposite direction of that desired when operation of the irrigation system or chemical injection unit fails or is shut down.

(16) "Chemical" or "product" means any material intended for chemigation or fertigation, including pesticides, commercial fertilizers, soil amendments, reclaimed water, animal effluents, or system maintenance compounds.

(17) "Chemigation" means the application of any substance or combination of substances intended as a pesticide, plant or crop protectant, or system maintenance compound applied with irrigation water.

(18) "Chemigation operation" means all activities and equipment associated in preparing for, performing, and concluding a chemigation application, which includes, but is not limited to, calibrating, mixing, loading, starting up, operating, monitoring, or shutting down a chemigation system.

(19) "Chemigation system" means the chemical injection system as well as the irrigation water distribution system.

(20) "Commercial fertilizer" means a substance containing one or more recognized plant nutrients and which is used for its plant nutrient content and/or which is designated for use or claimed to have value in promoting plant growth, and shall include limes, gypsum, and manipulated animal and vegetable manures. It shall not include unmanipulated animal and vegetable manures and other products exempted by the department by rule.

(21) "Contact name" means a person or company responsible for placement and operation of an application tank.

(22) "Decommissioned" means rendering an application tank unusable for product containment.

(23) "Deep percolation" means the movement of water downward through the soil profile below a plant's effective rooting zone.

(24) "Department" means the Washington state department of agriculture.

(25) "End gun" means an intermittent, high-volume, water-emitting device located at or near the end of an irrigation application system.

(26) "Environment" means any plant, animal, natural resource, surface water (including underlying sediments), groundwater, drinking water supply, land surface or subsurface strata, or ambient air within the state of Washington or under the jurisdiction of the state of Washington.

(27) "Fertigation" means the application of any commercial fertilizer, nutrient, soil amendment, or reclaimed water with irrigation water intended for plant or soil biota growth and development or for soil conditioning or reclamation.

(28) "Fertigation operation" means all activities and equipment associated in preparing for, performing, and concluding a fertigation application, which includes, but is not limited to, calibrating, mixing, loading, starting up, operating, monitoring, or shutting down a fertigation system.

(29) "Fertigation system" means the chemical injection system as well as the irrigation water distribution system.

(30) "Homemade" means devices not otherwise commercially available for sale or not manufactured for the purpose of commercial sale.

(31) "Hydroponic" means the practice of growing plants in an aqueous solution, moist inert material, or otherwise in the absence of a mineral-based medium.

(32) "Imminent danger" means a threat to human health or the environment that is likely to happen during the current application.

(33) "Injection system" means all components used to supply, deliver, meter, and inject a substance into an irrigation system. This includes devices and components located between and inclusive of the application tank and the point of product discharge into the irrigation water, including components of the system interlock.

(34) "Inspection port" means an orifice or other viewing device from which the low pressure drain and irrigation line check valve may be assessed for proper operation.

(35) "Irrigation application system" means the physical components of an irrigation system that begins at the first water emitting device and ends with the last water emitting or purging device.

(36) "Irrigation season" means that period of time during which supplemental water is applied to aid in plant development, soil conditioning, temperature modification, or other such purposes.

(37) "Irrigation system" means all components used in diverting, supplying, distributing, and applying irrigation water.

(38) "Irrigation water distribution system" means all components inclusive of the irrigation water supply system and the irrigation application system.

(39) "Irrigation water supply system" means the water conveyance system, which begins at the point of diversion from the irrigation water source and ends with the first water emitting device.

(40) "Metering device" means a positive displacement injection pump, venturi device, or gravity feed device capable of being calibrated and used to control chemical placement into the irrigation water distribution system.

(41) "Nonpressurized water delivery system" means a method of irrigation in which water is distributed over the soil surface by gravity flow, such as rill, border, gated pipe, or spigotted pipe.

(42) "Off-site application" means the application or movement of product from the target site.

(43) "Operator" means any individual who has assumed responsibility or is considered principally responsible to ensure that a chemigation or fertigation system functions properly and conforms with the provisions of this chapter.

(44) "Outtake" means an opening that provides a source of untreated water.

(45) "Rinsate" means the liquid produced from the rinsing of any equipment or container that has come in direct contact with any pesticide or system maintenance compound.

(46) "Runoff" means surface water leaving the target site.

(47) "Sensitive area(s)" means schools, parks, dwellings, occupied buildings or structures, public roadways, waters of the state, or other areas in which off-target movement may endanger humans, animals, crops, or the environment.

(48) "Soil amendment" means any organic or inorganic substance, other than a commercial fertilizer as defined in WAC 16-200-695, that is intended to improve the physical characteristics of the soil or to make the growth medium more suitable for the establishment, growth, and production of plants.

(49) "Source water" or "water source" means an aquifer or surface water body, including a stream, stream system, lake, reservoir, or off-farm irrigation water ditch or conveyance system, and any spring water or underground water that is part of or tributary to the surface water body or aquifer.

(50) "System interlock" means the arrangement or interconnection of the irrigation pump or a pressure or flow sensing device with the chemical injection unit or other pumps in such a manner that shutdown of the chemigation injection system will occur in the event of any component malfunction or failure that substantially impacts the application rate.

(51) "Vacuum-relief valve" means a device that automatically relieves or breaks a vacuum, thereby preventing backsiphoning.

(52) "Washwater" means the liquid produced from the rinsing of the exterior of any equipment or containers that have or may have come in direct contact with any pesticide or system maintenance compound.

(53) "Waters of the state" means, but is not limited to, lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, irrigation canals and reservoirs.

PART 2
GENERAL REQUIREMENTS ((FOR CHEMIGATION OPERATIONS))

NEW SECTION

WAC 16-202-200 General chemigation requirements. (1) The certified applicator is responsible for safe application and for the proper operation of the chemigation equipment.

(2) Only pesticides properly labeled for chemigation may be used.

(3) An application system shall be operated in a manner that is consistent with the intent of the pesticide label, state pesticide rules, and this chapter and its provisions.

(4) Prior to use, substituted alternative technology not otherwise specified in this chapter must be evaluated by the department to determine if the provisions of this chapter have been fulfilled.

(5) During a chemigation application, an irrigation system and injection system are considered one unit, and the applicator is responsible for their proper operation.

(6) Only an appropriately licensed certified applicator or a person acting under the direct supervision of a certified applicator may calibrate, load, start up, operate, monitor, or shut down a chemigation system.

(7) All applicable pesticide laws, in addition to those contained in this chapter, pertain to chemigation.

(8) A chemigation system cannot draw water from any water supply unless that supply is protected from contamination. The applicator must verify that backflow cannot occur.

(9) Intentional or unintentional off-site application of pesticides is prohibited.

(10) The application must be continuously observed whenever sensitive areas are at risk of being exposed to drift, runoff, or overspray.

(11) Pesticides cannot be applied with an open surface, gravity irrigation system unless allowed by the product label.

(12) All chemigation systems and system components must allow for visual, physical, and/or manual inspection.

(13) A chemigation system must be flushed out after an application.

(14) All components must be chemically compatible with injected materials, water containing injected materials, and system pressure.

(15) Equipment must be calibrated and maintained in a manner to prevent misapplication or off-site application of any product.

(16) Safety devices and injection equipment must be installed, operated, and maintained in accordance with the manufacturer's specifications, established industry standards, and the rules of this chapter.

NEW SECTION

WAC 16-202-210 General fertigation requirements. (1) The fertigation operator is responsible for safe application and for the proper operation of the fertigation equipment.

(2) A fertigation system must be designed, constructed, installed, operated, and maintained in accordance with the provisions of this chapter.

(3) Substituted alternative technology not otherwise identified in this chapter must be evaluated by the department before use to determine if the provisions of this chapter have been fulfilled.

(4) All commercial fertilizers used for fertigation must meet Washington state fertilizer standards. This does not prohibit fertigation systems from being used to apply other products such as reclaimed water, animal effluent, or similar substances provided that the appropriate antipollution devices are present and the provisions of this chapter are met.

(5) During a fertigation application, an irrigation system and injection system are considered one unit, and the applicator is responsible for their proper operation.

(6) All applicable fertilizer laws, in addition to those contained in this chapter, pertain to fertigation.

(7) A fertigation system cannot draw water from any water supply unless that supply is protected from contamination. The fertigation operator must verify that backflow cannot occur.

(8) All fertigation systems and system components must allow for visual, physical, and manual inspection.

(9) A fertigation system must be flushed out and rinsed off after an application.

(10) All components must be chemically compatible with injected materials, water containing injected materials, and system pressure.

(11) Equipment must be calibrated and maintained in a manner to prevent misapplication or off-site application of any product.

(12) Safety devices and injection equipment must be installed, operated, and maintained in accordance with the manufacturer's specifications, established industry standards, and the rules of this chapter.

NEW SECTION

WAC 16-202-220 Site posting. (1) The certified applicator must ensure compliance with posting requirements as specified on any pesticide product label.

(2) Posting, if required, for a chemigation operation, must occur no more than 24 hours before the start of a chemigation operation, unless indicated otherwise in rule or by the pesticide label.

(3) Posting must be removed no later than 72 hours after at the conclusion of the restricted reentry interval, unless indicated otherwise in rule or by the pesticide label.

(4) Postings must meet all requirements of the worker protection standard (chapter 16-233 WAC).

NEW SECTION

WAC 16-202-230 Recordkeeping. (1) All persons who apply pesticides by means of an irrigation system shall keep a record of each application.

(2) In addition to the information required in WAC 16-228-1320, the applicator must include the total application depth of irrigation water applied during the chemigation operation as part of the pesticide application record.

NEW SECTION

WAC 16-202-240 Application tank identification. (1) An application tank must:

(a) Have the registered pesticide product label or labels (including the EPA registration number(s) and the appropriate EPA establishment number) prominently affixed to the application tank while it contains that pesticide;

(b) List the tank contents, using the industry-accepted identifier for the principal product(s) while it contains a commercial fertilizer;

(c) Display its maximum net capacity;

(d) Display a contact name and telephone number; and

(e) Display an owner-derived numeric or alphanumeric tank identifier.

(2) This information must be visibly recorded and securely affixed to each application tank. The label and distinguishing information shall be designed to remain intact and legible throughout the active use of the container.

(3) Lettering that displays the contact name, telephone number, and tank identifier shall be a minimum of two inches in height and in a color contrasting to the background.

NEW SECTION

WAC 16-202-250 Application tank placement. (1) Application tanks shall not be located in an area or placed in such a manner to

contaminate water, the environment, sensitive areas, or to endanger human health.

(2) Application tanks shall be positioned down gradient from wellheads, public waterways, off-farm irrigation supply ditches or conveyance systems, or sensitive areas when feasible.

(a) If down gradient placement is not feasible, earthen berms or other structures of sufficient design must be constructed to divert spillage, leakage, or surface flow away from such areas.

(b) An application tank cannot be placed closer than 20 feet from wellheads, public waterways, off-farm irrigation supply ditches or conveyance systems, or sensitive areas.

(c) Mixing or loading activities cannot occur within 20 feet of a sensitive area, wellhead, public waterway, off-farm irrigation supply ditch or conveyance system, and irrigation water source.

(d) Alternative technology that provides substantially equal protection such as a secondary containment facility that complies with the structural design requirements in the secondary and operational area containment rules found in chapter 16-201 WAC (commercial fertilizers) and chapter 16-229 WAC (pesticides) will fulfill the requirements in (a), (b), and (c) of this subsection.

(e) Overflow from an irrigation pond contaminated with product cannot enter a public waterway, off-farm irrigation supply ditch or conveyance system, or sensitive area.

(3) Application tanks must be positioned to prevent leaks, spills, or structural damage.

(a) Application tanks must be placed on a rigid, sound under-structure or on stable ground to prevent tipping, spillage, puncturing, or breakage.

(b) Application tanks and the injection system must be protected against reasonably foreseeable risks of damage by implements, trucks or other moving vehicles, or objects.

(4) Application tanks should be sited as close as reasonably possible to the injection point.

(5) Tank outlet ports must be fitted with manual shutoff valves.

NEW SECTION

WAC 16-202-260 Application tank containment. Application tanks functionally connected to and dedicated solely for use with a chemigation or fertigation system may be exempt from the secondary and operational area containment rules in chapter 16-201 WAC (commercial fertilizers) and chapter 16-229 WAC (pesticides) when in compliance with the conditions found in this section.

(1) Time-in-place.

(a) Pesticides can remain in an application tank for a period not to exceed 14 days between chemigation applications. If the 14-day period is exceeded, the tank is deemed to be a storage facility and is therefore subject to the secondary and operational area containment rules.

(b) Commercial fertilizers can remain in an application tank for a period not to exceed nine consecutive months during an irrigation or application season. If the nine-month period is exceeded, the tank is deemed a storage facility and is therefore subject to the secondary and operational area containment rules.

(c) An application tank containing product during the nonapplication or nonirrigation season is subject to the secondary and operational area containment rules regardless of tank size.

(d) The application tank must be emptied, cleaned, visually inspected for integrity, and serviced at the end of the irrigation or application season or after nine months, whichever is shorter, and then:

(i) Removed from the site;

(ii) Decommissioned and clearly tagged with the words "out-of-service"; or

(iii) Managed as a permanent storage facility per the requirements in chapter 16-201 WAC (for commercial fertilizers) and chapter 16-229 WAC (for pesticides).

(2) Chemigation tank size.

(a) Tanks with a rated capacity exceeding 2,500 gallons are deemed a permanent storage facility.

(b) Multiple tanks positioned at an injection site with a cumulative capacity exceeding 3,000 gallons are also deemed a permanent storage facility.

(c) Exception for soil fumigation only: Beginning at the time of tank placement, a tank with a rated capacity of 8,000 gallons or less may be placed at an injection site for 14 days or less. However, during the 14-day period, the cumulative quantity of product at an injection site whether in single or multiple tanks cannot exceed 6,500 gallons. The injection site shall be deemed a permanent storage facility provided, if at any time during the 14-day time-in-place period, the rated capacity of an individual tank exceeds 8,000 gallons or the cumulative quantity at an injection site exceeds 6,500 gallons.

(3) Fertigation tank size.

(a) An application tank with a rated capacity exceeding 6,500 gallons is deemed a permanent storage facility.

(b) Multiple tanks positioned at an injection site cannot exceed 10,000 gallons per application system.

(4) Tank monitoring.

(a) Tanks containing a pesticide must be inspected at the beginning of a chemigation operation and at least daily thereafter or monitored with remote access volumetric measuring devices.

(b) Tanks containing a commercial fertilizer must be inspected at the beginning of each fertigation operation and at least every seven days or monitored with remote access volumetric measuring devices thereafter.

NEW SECTION

WAC 16-202-270 Rinsate and backflush handling. (1) Rinsate must be applied at or below label rate to a target site or disposed of properly in accordance with chapter 173-303 WAC.

(2) Contaminated backflush water from a filtration device shall be disposed of in a manner that will not contaminate groundwater or surface water or adversely impact sensitive areas.

PART 3
SAFETY REQUIREMENTS ((FOR CHEMIGATION SYSTEMS))

NEW SECTION

WAC 16-202-300 Antipollution safety devices. (1) All systems must have antipollution safety devices that include a backflow prevention system, metering device, injection device, and system interlock as listed on the pesticide label and contained in this rule.

(2) Antipollution safety devices for chemigation systems must comply with all requirements of the pesticide label.

(3) Antipollution safety devices, when used, must be installed, operated, and maintained in accordance with the device manufacturer's directions.

(4) When alternative antipollution technology or methods are allowed, they must be designed and function in a manner to fulfill the provisions of this chapter.

(5) The operator must be able to demonstrate that alternative antipollution technology provides substantially equal or greater protection than required by the provisions of this chapter.

NEW SECTION

WAC 16-202-310 Water source backflow prevention. (1) Backflow prevention to the water source shall be required on all irrigation systems used for chemigation or fertigation.

(2) Backflow prevention devices on equipment used for chemigation or fertigation that connect to any water system intended for human use, including municipal and public water systems, shall have been approved by the Washington department of health per the requirements in WAC 246-290-490. Provided that a physical separation between the equipment and water system in the form of an air gap can be used to protect the water system if no backflow prevention device is used.

(3) Pressurized irrigation system.

(a) At least one irrigation mainline check valve must be correctly installed, properly operated, and adequately maintained to prevent contamination of the water source. The check valve must be located upstream from the injection point. The check valve must be automatic, quick-closing, and capable of forming and maintaining a watertight seal.

(b) An inspection port or a direct access point must be positioned immediately upstream of the check valve to allow visual and manual inspection of the check valve and the low-pressure drain. The inspection port or access point must have a minimum diameter of four inches. If a four-inch inspection port or access point is not feasible, an alternative access system must be devised.

(c) An inspection port or access point is not required with an approved backflow prevention assembly.

(d) A vacuum-relief valve must be located upstream of the irrigation line check valve, installed at the top of the irrigation pipeline, and adequately sized to prevent backsiphoning. The orifice size must comply with current American Society of Agricultural and Biological Engineers (ASABE) standards.

(e) An automatic low pressure drain or similar mechanism must be placed upstream of the irrigation line check valve and at the lowest point in the bottom of the pipeline. The low-pressure drain must be of adequate size and properly positioned to intercept and purge leakage away from the water source.

(f) Product-treated water cannot be discharged through a water outtake.

(4) Nonpressurized water delivery system.

(a) An open surface water delivery system cannot be used for chemigation unless allowed by the label.

(b) System design must prevent the introduction of treated water into the water source.

(c) Backflow prevention may be achieved with a hydraulic discontinuity in source water flow or by a sufficient hydraulic gradient.

(d) Backflow devices for nonpressurized systems may include a weir box, drop structure, ASAE approved air gap, batch tank, or similar device that can function to prevent backflow into the source water.

(e) Injection must occur downstream from the water diversion point.

NEW SECTION

WAC 16-202-315 Alternative water source backflow prevention.

(1) System design. If a system's configuration will provide substantially equal or greater protection due to the physical laws of gravity and water hydraulics, components of a backflow prevention system may be waived by the department.

(2) Barometric pipe loop.

(a) Barometric loops can only be used on systems pumping from a surface water source.

(b) The barometric pipe loop must be located in the main water line immediately downstream of the irrigation water pump.

(c) A barometric pipe loop must be designed with sufficient elevation differential to compensate for backflow.

(d) The bottom of the barometric loop apex must be at least 30 inches above the highest water-emitting device or of any portion of the irrigation application system.

(e) The barometric loop must contain a vacuum-relief device at the loop apex that allows air into the pipeline immediately upon loss of pressure. The orifice size must comply with current American Society of Agricultural and Biological Engineers (ASABE) standards.

(f) The chemical injection port must be located downstream of, and at least 30 inches below, the bottom of the pipe loop apex.

(3) The department may recognize authorized U.S. Environmental Protection Agency (USEPA) alternative backflow devices, providing they are as restrictive as the provisions of this chapter.

NEW SECTION**WAC 16-202-320 Application tank backflow and seepage prevention.**

(1) All irrigation and injection systems used for chemigation or fertigation must prevent backflow into the application tank and leakage or siphonage from the application tank through the injection system.

(2) Injection into a pressurized section of an irrigation system must include:

(a) An automatic, quick-acting injection line check valve must be used to prevent leakage from the application tank into irrigation water and to prevent irrigation water from entering the chemical injection line. The injection line check valve must maintain, at a minimum, 10 psi opening (cracking) pressure or adequate opening pressure to prevent gravity flow due to hydraulic head pressure from the application tank. The check valve must be located at the point of product injection into the irrigation water; and

(b) Where siphon action induced by an irrigation system could compromise the cracking (opening) pressure of an injection line check valve, a vacuum-relief valve must be installed in the irrigation line downstream of the injection point. The orifice size must comply with current American Society of Agricultural and Biological Engineers (ASABE) standards.

(3) Injection into nonpressurized (e.g., open surface, gated pipe, or spigotted pipe) portion of irrigation system must include a hydraulic discontinuity in source water flow or a sufficient hydraulic gradient such that chemicals or treated water cannot contaminate the water source. Backflow devices for nonpressurized systems may include a weir box, drop structure, air gap, batch tank, or similar device whose intended function is to prevent backflow into the application tank.

(4) Venturi or other passive injection systems.

(a) If backpressure or back-siphonage can occur, the chemical injection line must contain an automatic, quick-closing check valve. The valve must be located immediately adjacent to the chemical inlet side of the venturi.

(b) If product can potentially siphon or seep into the water supply, the chemical injection line must contain a normally closed solenoid operative 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 installed adjacent to the product outlet on the application tank.

(c) With a bypass system, as an alternative to (a) and (b) of this subsection, the automatic, quick-closing check valve may be installed in the bypass immediately upstream of the venturi water inlet. In addition, either the normally closed solenoid or the hydraulic solenoid may be installed immediately downstream of the venturi water outlet.

(d) Bypass systems with a booster pump must have the normally closed solenoid interlocked with the source pump for the irrigation system.

NEW SECTION

WAC 16-202-325 Alternative application tank backflow and seepage prevention. (1) In lieu of a normally closed solenoid with the injection system:

(a) A normally open valve must be located in the chemical injection line between the application tank and a positive displacement injection pump. The normally open valve must be spring-loaded, and must close upon a vacuum, and open at atmospheric pressure. It must be elevated at least 12 inches above the maximum fluid level in the application tank and must be the highest point in the injection line.

(b) The mechanism described in (a) of this subsection cannot be used in conjunction with a venturi injection system.

(2) In lieu of a 10 psi opening (cracking) pressure check valve.

(a) An automatic, quick-acting, spring-loaded check valve must be attached at or positioned immediately adjacent to the injection point to prevent irrigation water from entering the chemical injection line.

(b) A normally closed solenoid must be installed immediately adjacent to the product outlet on the application tank. If electric, it must be interlocked with the injection pump or, if hydraulic, with the irrigation system.

(c) In place of (b) of this subsection, a normally open valve must be located in the chemical injection line between the application tank and a positive displacement injection pump as described in subsection (1)(a) of this section. This alternative cannot be used with venturi injection systems.

NEW SECTION

WAC 16-202-330 Metering devices. (1) Metering devices are required and must be capable of being accurately calibrated, controlling the rate of product injection into irrigation water, and discontinuing product delivery when the predetermined application quantity has been dispensed.

(2) All metering devices must be functionally interlocked with the source irrigation pump or irrigation water distribution system.

(3) Injecting product with a pressurized metering pump.

(a) The metering pump must be of a positive displacement design.

(b) Water-powered injection pumps can only be used when no other power source is available to operate the injection unit.

(c) The metering pump must be interlocked to the irrigation system in the event of an irrigation system malfunction or failure.

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

(a) An open surface water delivery system cannot be used for chemigation unless allowed by the label.

(b) Application rate may be accomplished with an adjustable valve, flow control device, or other metering mechanism as if allowed by the pesticide label.

(c) The metering device must also control application quantity by employing a slide metering device or by placing a predetermined quantity into a batch tank.

(5) Venturi system as a metering device.

(a) A venturi system may be used as a metering device, except where variable pressure may contribute to a variable injection rate.

(b) 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.

(c) The chemical injection line between the application tank and the venturi must contain an automatic, quick-closing check valve to prevent the flow of liquid back toward the application tank. This check valve must be placed immediately adjacent to the venturi chemical inlet.

(d) In bypass systems, the check valve may be installed immediately upstream of the venturi water inlet. Either the normally closed solenoid or hydraulically operated valve may be installed immediately downstream of the venturi water outlet.

(e) If a booster or auxiliary pump is used in conjunction with a venturi system, the normally closed solenoid must be electrically interlocked with the source pump for the irrigation system.

NEW SECTION

WAC 16-202-335 Alternative metering devices. (1) A person shall not function as a metering device during a chemigation application.

(2) A person with knowledge of the operation of both the irrigation and injection systems may function as a metering device during fertigation with a nonpressurized irrigation delivery system: Provided that the person remains on-site to continuously monitor the application and is immediately available to terminate the application in the event of any equipment malfunction.

NEW SECTION

WAC 16-202-340 Product injection equipment. (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 10 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 injec-

tion 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.

NEW SECTION

WAC 16-202-345 Alternative product injection equipment. (1)

When utilizing a surface supplied water source, the injection point must occur downstream from the point of diversion.

(2) When utilizing a pressurized water source, the injection point must be located such that product backflow cannot occur.

(3) Injection with barometric loops.

(a) Barometric loops can only be used on systems pumping from a surface water source.

(b) The barometric pipe loop must be located in the water line immediately downstream of the irrigation water pump.

(c) A barometric pipe loop must be designed with sufficient elevation differential to compensate for backflow.

(d) The bottom of the barometric loop apex must be at least 30 inches above the highest water-emitting device or of any portion of the irrigation application system.

(e) The barometric loop must contain a vacuum-relief device at the loop apex that allows air into the pipeline immediately upon loss of pressure. The orifice size must comply with current American Society of Agricultural and Biological Engineers (ASABE) standards.

(f) The injection point on a barometric loop must be located downstream of and at least 30 inches below the bottom of the barometric pipe loop apex.

(4) Solenoid and check valve.

(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. A normally closed, solenoid-operated 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 to prevent the flow of liquid back toward the application tank. The check valve must be placed immediately adjacent to the venturi chemical inlet.

NEW SECTION

WAC 16-202-350 System interlocks. (1) A system interlock must automatically shut off the injection system if the irrigation pump stops operating or if variation in water flow adversely affects product injection rate or product distribution uniformity. The operator must be able to demonstrate that backflow cannot occur.

(2) Pressurized injection systems or injection into a pressurized portion of the irrigation system requires either an electrical, hydraulic, or mechanical system interlock device.

(3) When the injection point is at a nonpressurized section of an irrigation water distribution system, an interlock mechanism must discontinue product delivery in the event that water flow is interrupted or sufficiently reduced such that product application is adversely impacted to the target site. Furthermore, treated water cannot enter waters of the state.

(4) With venturi systems.

(a) Booster or auxiliary water pumps must be connected with the system interlock such that when pressure in the mainline changes to the point where product distribution is adversely affected automatic shutoff of product supply will occur.

(b) The supply 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. If a booster or auxiliary pump is used in conjunction with a venturi system, the normally closed solenoid must be electrically interlocked with the source pump for the irrigation system.

NEW SECTION

WAC 16-202-355 Alternative system interlocks. (1) A person shall not serve as a human interlock for chemigation equipment.

(2) A person with knowledge of the operation of both the irrigation and injection systems may function as a system interlock during fertigation: Provided that the person remains on-site to continuously monitor the application and is immediately available to terminate the application in the event of any equipment malfunction.

(3) Solenoid and check valve.

(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. A normally closed, solenoid-operated 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 to prevent the flow of liquid back toward the application tank.

The check valve must be placed immediately adjacent to the venturi chemical inlet.

NEW SECTION

WAC 16-202-360 Chemigation monitoring. (1) A chemigation application must be visually inspected by a certified applicator or someone under their direct supervision at least once during each four-hour period, unless the pesticide label(s) or product characteristics requires a more frequent interval.

(2) The certified applicator is considered principally responsible to ensure that the chemigation system functions properly and conforms with the provisions of this chapter.

(3) A chemigation system capable of being monitored by the certified operator from a remote location shall not require visual inspection every four hours if it is utilizing the following capabilities:

(a) Automatically notifies the certified applicator of the pesticide flow rate at least once every four hours or more frequently when required by the label, location, or product characteristics;

(b) Automatically notifies the certified applicator in the event of any power failure, equipment shutdown, or other fault affecting the chemigation; and

(c) Allows the certified applicator to shut down the chemigation equipment from their location.

(4) Notwithstanding the provisions of this section, the application must be continuously observed whenever sensitive areas are at risk of being exposed to drift, runoff, or overspray.

NEW SECTION

WAC 16-202-370 Fertigation monitoring. (1) A fertigation application must be visually inspected at least once every 24 hours unless product characteristics require a more frequent interval.

(2) A fertigation system capable of being monitored by the operator from a remote location shall not require visual inspection every 24 hours if it is utilizing the following capabilities:

(a) Automatically notifies the operator of the fertilizer flow rate at least once every 24 hours or more frequently as required by the location or product characteristics;

(b) Automatically notifies the operator in the event of any power failure, equipment shutdown, or other fault affecting fertigation; and

(c) Allows the operator to shut down the fertigation equipment from their location.

(3) Notwithstanding the provisions of this section, a fertigation application must be continuously monitored whenever sensitive areas are at risk of being exposed to drift, runoff, or overspray.

PENALTIES ((AND PENALTY ASSIGNMENT SCHEDULE FOR CHEMIGATION OPERATIONS))NEW SECTION

WAC 16-202-400 Penalties. (1) Any person who fails to comply with any provision of this chapter shall be subject to denial, suspension, or revocation of any license, registration, or permit provided for in RCW 15.54.474, 15.58.260, 15.58.335, 15.58.345, and RCW 17.21.300 and 17.21.315 and/or imposition of a civil penalty as provided therein.

(2) The director may bring an action to enjoin the violation or threatened violation of any provision of this chapter or any rule made pursuant to this chapter in a court of competent jurisdiction of the county in which such violation occurs or is about to occur.

NEW SECTION

WAC 16-202-410 Other dispositions of alleged violations. Nothing in this chapter shall prevent the department from:

(1) Choosing not to pursue a civil penalty, license suspension, license revocation, or court action.

(2) Issuing a notice of correction in lieu of pursuing a civil penalty, license suspension, or license revocation.

(3) Issuing a "stop use" order directing the operator to discontinue any violation of this chapter and take such affirmative action as is necessary to comply with this chapter.

(4) Referring violations or alleged violations to any federal, state, or county authority with jurisdiction over the activities in question including, but not limited to, the Environmental Protection Agency (EPA), the Washington department of ecology (ecology), the Washington department of health (health), or criminal prosecutors for criminal dispositions.

REPEALER

The following sections of the Washington Administrative Code are repealed:

WAC 16-202-1001	What is the purpose of this chapter?
WAC 16-202-1002	How are specific terms and phrases defined in this chapter?
WAC 16-202-1003	What are the general requirements in performing a chemigation operation?
WAC 16-202-1004	Who may calibrate, load, start up, operate, monitor, or shut down a chemigation system?
WAC 16-202-1005	What are the site posting requirements for chemigation?

- WAC 16-202-1006 What are the recordkeeping requirements for an application?
- WAC 16-202-1007 What are the identification requirements for application tanks?
- WAC 16-202-1008 What are the placement requirements for application tanks?
- WAC 16-202-1009 Under what conditions is an application tank exempt from secondary and operational area containment rules?
- WAC 16-202-1010 How should rinsate or backflush water from a filtration device be handled?
- WAC 16-202-1011 What are the general antipollution safety device requirements for a chemigation system?
- WAC 16-202-1012 What measures must be used to prevent backflow into the irrigation water source?
- WAC 16-202-1013 What alternative methods may be used to prevent backflow into the irrigation water source?
- WAC 16-202-1014 What are the prevention requirements for backflow into or seepage from application tanks?
- WAC 16-202-1015 What alternative methods may be used to prevent backflow into or seepage from application tanks?
- WAC 16-202-1016 What are the requirements for metering devices?
- WAC 16-202-1017 What are alternative methods for metering?
- WAC 16-202-1018 What are the requirements for product injection devices?
- WAC 16-202-1019 What alternative methods may be used for product injection?
- WAC 16-202-1020 What are the requirements for a system interlock?
- WAC 16-202-1021 What alternative methods can be used as a system interlock?
- WAC 16-202-1022 What is an appropriate monitoring schedule?
- WAC 16-202-1023 Public water system cross-connections or connections to a potable water supply intended for human use.
- WAC 16-202-1024 Penalties.
- WAC 16-202-2001 What is the purpose of this chapter?
- WAC 16-202-2002 How are specific terms and phrases defined in this chapter?
- WAC 16-202-2003 What are the general requirements in performing a fertigation operation?

- WAC 16-202-2004 What are the identification requirements for application tanks?
- WAC 16-202-2005 What are the placement requirements for application tanks?
- WAC 16-202-2006 Under what conditions is an application tank exempt from the secondary and operational area containment rules?
- WAC 16-202-2007 How should rinsate from equipment or backflush water from a filtration device be handled?
- WAC 16-202-2008 What are the general antipollution safety device requirements for a fertigation system?
- WAC 16-202-2009 What measures must be used to prevent backflow into the irrigation water source?
- WAC 16-202-2010 What alternative methods may be used to prevent backflow into the irrigation water source?
- WAC 16-202-2011 What are the prevention requirements for backflow into or seepage from application tanks?
- WAC 16-202-2012 What alternative methods may be used to prevent backflow into or seepage from application tanks?
- WAC 16-202-2013 What are the requirements for metering devices?
- WAC 16-202-2014 What are alternative methods for metering?
- WAC 16-202-2015 What are the requirements for product injection devices?
- WAC 16-202-2016 What alternative methods may be used for product injection?
- WAC 16-202-2017 What are the requirements for a system interlock?
- WAC 16-202-2018 What alternative methods can be used as a system interlock?
- WAC 16-202-2019 What is an appropriate monitoring schedule?
- WAC 16-202-2020 Public water system cross-connections or connection to a potable water supply intended for human use.
- WAC 16-202-2021 Penalties.