



RULE-MAKING ORDER

(RCW 34.05.360)

CR-103 (7/10/97)

Agency: Agriculture

- Permanent Rule
- Emergency Rule
- Expedited Adoption
- Expedited Repeal

(1) Date of adoption: November 17, 2000

(2) Purpose: To revise WAC 16-201, Rules Relating to Secondary and Operational Area Containment for Bulk Fertilizer Storage Facilities. The rule addresses issues and concerns raised since implementation of the original rule in March, 1994.

(3) Citation of existing rules affected by this order: WAC 16-201

Repealed: See attached.

Amended:

Suspended:

(4) Statutory authority for adoption: RCW 15.54.800

Other Authority:

PERMANENT RULE ONLY (Including EXPEDITED ADOPTION)

Adopted under notice filed as WSR 00-19-090 on September 20, 2000 (date).

Describe any changes other than editing from proposed to adopted version: WAC 16-201-270(2) and (3) have been revised to extend the compliance deadline from December 31, 2001 to 30 months after the effective date of the rule.

EMERGENCY RULE ONLY

Under RCW 34.05.350 the agency for good cause finds:

- (a) That immediate adoption, amendment, or repeal of a rule is necessary for the preservation of the public health, safety, or general welfare, and that observing the time requirements of notice and opportunity to comment upon adoption of a permanent rule would be contrary to the public interest.
- (b) That state or federal law or federal rule or a federal deadline for state receipt of federal funds requires immediate adoption of a rule.

Reasons for this finding:

EXPEDITED REPEAL ONLY

Under Preproposal Statement of Inquiry filed as WSR _____ on _____ (date)

(5.3) Any other findings required by other provisions of law as precondition to adoption or effectiveness of rule?:

- Yes
 - No
- If Yes, explain:

(6) Effective date of rule:

Permanent Rules
or Expedited Repeal

Emergency Rules

- 31 days after filing
- Other (specify) _____*
- Immediately
- Later (specify) _____

*(If less than 31 days after filing, specific finding in 5.3 under RCW 34.05.380(3) is required)

Name (Type or Print)

Jim Jesernig

Signature

Title
Director

Date

11/17/00

CODE REVISER USE ONLY

CODE REVISER USE ONLY
STATE OF WASHINGTON

NOV 17 2000

TIME

3:14

WSR

00-23-075

AM
PM

**Note: If any category is left blank, it will be calculated as zero.
No descriptive text.**

Count by whole WAC sections only, from the WAC number through the history note.
A section may be counted in more than one category.

The number of sections adopted in order to comply with:

Federal statute:	New	_____	Amended	_____	Repealed	_____
Federal rules or standards:	New	_____	Amended	_____	Repealed	_____
Recently enacted state statutes:	New	_____	Amended	_____	Repealed	_____

The number of sections adopted at the request of nongovernmental entity:

New	_____	Amended	_____	Repealed	_____
-----	-------	---------	-------	----------	-------

The number of sections adopted in the agency's own initiative:

New	<u>2</u>	Amended	<u>24</u>	Repealed	_____
-----	----------	---------	-----------	----------	-------

The number of sections adopted in order to clarify, streamline, or reform agency procedures:

New	<u>1</u>	Amended	<u>12</u>	Repealed	_____
-----	----------	---------	-----------	----------	-------

The number of sections adopted using:

Negotiated rule making:	New	_____	Amended	_____	Repealed	_____
Pilot rule making:	New	_____	Amended	_____	Repealed	_____
Other alternative rule making:	New	<u>2</u>	Amended	<u>24</u>	Repealed	_____

Citation of existing rules affected by this order:

Repealed: None

Amended: WAC 16-201-010, 020, 025, 028, 030, 040, 050, 060, 070, 080, 110, 120,
130, 170, 180, 190, 200, 220, 230, 240, 250, 260, 270 and 280.

New: WAC 16-201-029 and 031

Suspended: None

WAC 16-201-010 Definitions. The definitions set forth in this section shall apply throughout this chapter, unless the context otherwise requires.

(1) **"Approved air gap"** means a physical separation between the free-flowing end of a water supply pipeline and the overflow rim of an open or nonpressurized receiving vessel. To be an approved air gap, the separation must be at least:

(a) Twice the diameter of the supply piping measured vertically from the overflow rim of the receiving vessel, and in no case be less than one inch, when unaffected by vertical surfaces (sidewalls); or

(b) Three times the diameter of the supply piping, if the horizontal distance between the supply pipe and a vertical surface (sidewall) is less than or equal to three times the diameter of the supply pipe, or if the horizontal distance between the supply pipe and intersecting vertical surfaces (sidewalls) is less than or equal to four times the diameter of the supply pipe and in no case less than one and one-half inches.

(2) **"Approved reduced pressure principle backflow prevention assembly (RPBA)"** means an RPBA of a make, model and size that is approved by the Washington State Department of Health.

(3) **"Appurtenances"** means all valves, pumps, fittings, pipes, hoses and metering devices which are connected to a storage container, or which are used to transfer a material into or out of such storage container.

~~((2))~~ (4) **"Bulk fertilizer"** means commercial fertilizer distributed in a nonpackage form such as, but not limited to, tote bags, tanks, trailers, spreader trucks, and railcars.

(5) **"Certified engineer"** means a licensed professional engineer, registered in the state of Washington in the discipline in which he/she is practicing.

~~((3))~~ (6) **"Commercial fertilizer"** means any 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: *Provided*, That for the purpose of this chapter calcium carbonate (lime) and anhydrous ammonia are exempt: *Provided further*, That this rule does not apply to materials (including but not limited to compost, biosolids, or municipal sewage sludge), or to products derived therefrom, which are regulated pursuant to the provisions of chapter 70.95 or 70.95J RCW, or rules adopted thereunder.

~~((4))~~ (7) **"Department"** means the Washington state department of agriculture.

~~((5))~~ (8) **"Discharge"** means a spill, leak, or release, accidental or otherwise, from a storage container, container or appurtenance. It does not include a fully contained transfer of fertilizer made pursuant to sale, storage, distribution or use.

~~((6))~~ (9) **"Dry fertilizer"** means fertilizer in solid form.

~~((7))~~ (10) **"Liquid fertilizer"** means fertilizer in liquid form, and includes solutions, emulsions, suspensions and slurries. Liquid fertilizer does not include anhydrous ammonia.

(11) **"Not technically feasible"** means compliance is not physically or technically possible or feasible, and/or compliance cannot be achieved without compromising operational safety, and/or significantly compromising operational access. Monetary cost of compliance alone, shall not be sufficient for the department to determine that compliance is not technically feasible.

~~((8))~~ (12) **"Operational area"** means an area or areas at a fertilizer bulk permanent storage facility where fertilizers are transferred, loaded, unloaded, mixed, repackaged, refilled or where fertilizers are cleaned, washed or rinsed from containers or application, handling, storage or transportation equipment.

~~((9))~~ (13) **"Operational area containment"** means any structure or system designed and

constructed to intercept and contain discharges, including storage container or equipment wash water, rinsates, and rainwater from the operational area(s) of fertilizer bulk storage facilities.

~~((10))~~ (14) "**Permanent storage facility**" means a location at which undivided quantities of liquid bulk fertilizer in excess of five hundred U.S. gallons or undivided quantities of dry bulk fertilizer in ((undivided quantities exceeding)) excess of fifty thousand pounds is held in storage: Provided, That temporary field storage is ((allowed)) not considered a permanent storage facility. ((Effective March 1, 1999, "temporary field storage" shall mean a primary bulk fertilizer storage container of ten thousand gallons or less that remains in the same location for no more than twenty one consecutive days in any six-month period. Effective March 1, 2004 "temporary field storage" shall mean a primary bulk fertilizer storage container of ten thousand gallons or less that remains in the same location for no more than fourteen consecutive days in any six-month period. Temporary field storage may be extended upon request by written permit. The department shall be notified in writing, upon request, of the physical location of all temporary field storage sites. Liquid bulk fertilizer storage containers directly attached to an apparatus for the purpose of fertigation are exempt from this chapter.

~~((11))~~ (15) "**Primary containment**" means the storage of liquid or dry bulk fertilizer in storage containers at a permanent storage facility.

~~((((12))~~ (16) "**Rinsate**" means the liquid generated from the rinsing of any equipment or container that has come in direct contact with any fertilizer, including: recovered sedimentation, washwater, contaminated precipitation, or other contaminated debris.

~~((((13))~~ (17) "**Secondary containment**" means a device or structure designed, constructed, and maintained to hold or confine a discharge of a liquid fertilizer from a permanent storage facility.

~~((((14))~~ (18) "**Storage container**" means a container, including a railcar, nurse tank or other mobile container, that is used or intended for the storage of bulk liquid or dry fertilizer. It does not include a mobile container at a storage facility for less than ~~((thirty))~~ fifteen days if this storage is incidental to the loading or unloading of a storage container at the bulk fertilizer storage facility. Storage container does not include underground storage containers or surface impoundments such as lined ponds or pits.

~~((19) "Substantially similar protection" means alternative containment and management practices that prevent or control releases to the environment to the same or similar degree as the protections afforded by full compliance with this chapter.~~

~~((20) "Temporary field storage" means a storage container with the capacity to store ten thousand gallons or less of liquid bulk fertilizer that remains in the same location for no more than twenty-one consecutive days in any six-month period. Effective March 1, 2004, "temporary field storage" shall mean a storage container of ten thousand gallons or less that remains in the same location for no more than fourteen consecutive days in any six month period. Liquid bulk fertilizer application tanks directly attached to an apparatus for the purpose of fertigation are exempt from this chapter.~~

~~((((15))~~ (21) "**Washwater**" means the liquid generated from the rinsing of the exterior of any equipment, containers or secondary containment or operational areas which have or may have come in direct contact with any fertilizer.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-020 Secondary containment of liquid bulk fertilizers--General requirements. Primary storage of bulk liquid fertilizers at a permanent storage facility shall be located within ~~((a))~~ secondary containment ~~((facility))~~ designed to prevent the release of discharged fertilizers. ~~((As))~~ Secondary containment ~~((facility))~~ shall consist of:

- (1) A wall and liner with a sloped floor as provided in WAC 16-201-028 and 16-201-030; or
- (2) A prefabricated facility as provided in WAC 16-201-040.

(3) Secondary containment ((facilities)) in operation prior to March 1, 1994, which does not have sloped floors shall be exempt from this section: Provided, That upon alteration to the ((facility)) secondary containment or increase of storage volume, the ((facility)) secondary containment shall be brought into full compliance with this section.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-025 Secondary containment of liquid bulk fertilizers--Capacity. (1) ((The s)) Secondary containment ((facility)) shall contain at least one hundred twenty-five percent of the volume of the largest storage container within the area plus the displacement of all other tanks, appurtenances, and other items within the containment area: Provided, That permanent storage facilities that have tanks of one hundred thousand gallons or greater capacity may use the following method to meet the capacity requirement: ((The facility)) Secondary containment shall contain at least one hundred ten percent of the volume of the largest storage container within the area plus the displacement of all other tanks, appurtenances, and other items within the area plus sufficient volume to contain the precipitation from a twenty-five year, twenty-four hour storm event.

(2) If the secondary containment ((facility)) is located indoors or under a roof to prevent accumulation of rainfall, the area shall contain at least one hundred ten percent of the volume of the largest storage container plus the displacement of all other tanks, appurtenances and other items within the containment area.

(3) Secondary containment ((facilities)) in operation prior to March 1, 1994, ((and which have)) having a capacity of at least one hundred ten percent of the volume of the largest storage container within the area plus the displacement of all other tanks, appurtenances, and other items within the containment area shall be considered to be in compliance with this section: Provided, That upon alteration to the ((facility)) secondary containment or increase of storage container volume the ((facility)) secondary containment shall be brought into full compliance with the specific capacity requirement of this section.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-028 Secondary containment of liquid bulk fertilizers--Walls and Floors.

(1) The ((walls of a secondary containment facility shall be constructed of steel, poured reinforced concrete, precast concrete modules, solid masonry, or other materials that will provide similar protection. Walls constructed of earth shall be allowed at storage facilities which have tanks of one hundred thousand gallons or greater capacity and at other facilities when a synthetic liner is used. The wall shall be designed to withstand a full hydrostatic head of any discharged liquid, and shall be properly sealed to prevent leakage)) secondary containment floor shall slope to one or more liquid tight collection points or sumps that allows spilled or deposited materials to be easily removed.

(2) ((Earthen walls shall have a horizontal to verticle slope of at least three to one, unless a steeper slope is consistent with good engineering practice, and shall be packed and protected from erosion. The top of earthen walls shall be no less than two feet six inches wide.)) The walls and floor of secondary containment shall be constructed of steel, poured reinforced concrete, precast concrete modules, solid masonry, or other materials or combination of materials that:

(a) Shall be designed to withstand a full hydrostatic head of any discharged liquid;

(b) Shall have sufficient thickness and chemical resistance to contain a release until it is recovered;

(c) Shall be constructed and maintained to a permeability standard of 1×10^{-6} cm/sec as determined by ASTM test method D-5084 Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter or other test method approved by the department;

(d) Shall have sufficient structural strength to maintain the containment's integrity under normally anticipated loadings;

(e) Shall be chemically compatible with the materials being stored; and

(f) Shall be properly sealed to prevent leakage.

(3) Any piping through the outside walls of ((a)) secondary containment ((facility)) shall be installed and maintained such that the structural integrity of the wall is preserved and in such a manner as to prevent leaks.

NEW SECTION

WAC 16-201-029 Secondary containment of liquid bulk fertilizer – Earthen walls. (1)

Secondary containment walls constructed of earth shall be allowed at permanent storage facilities when a liner is used: Provided, That only permanent storage facilities having storage containers of one hundred thousand gallons or greater capacity can use clay liners.

(2) Earthen walls shall have a horizontal to vertical slope of at least three to one, unless a steeper slope is consistent with good engineering practice, and shall be packed and protected from erosion.

(3) The top of earthen walls shall be no less than two feet six inches wide.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-030 Secondary containment of liquid bulk fertilizers--Lining. ((The base

of a secondary containment facility shall be lined with steel, concrete or a synthetic liner. Provided, That facilities with storage tanks of one hundred thousand gallons or greater may use clay soil liners. The secondary containment floor shall slope to a liquid tight collection point or sump that allows spilled or deposited materials to be easily removed.)) If a liner is required to meet the standards set forth in WAC 16-201-028, then it must be constructed as follows:

(1) ((Concrete liners. Concrete liners shall be designed according to good engineering practices to withstand any foreseeable loading conditions, including a full hydrostatic head of discharged liquid, and shall be properly sealed to prevent leakage.)) Synthetic liners:

(a) Synthetic liners shall be chemically compatible with the materials being stored within the permanent storage facility and have a minimum thickness of thirty mils +/- 1 mil. A written confirmation of compatibility and a written estimate of the life of the liner from the manufacturer shall be kept on file at the permanent storage facility or the nearest local office from which the permanent storage facility is administered.

(b) Synthetic liners shall be installed under the supervision of a qualified representative of the manufacturer, a contractor certified by the manufacturer, or a certified engineer. All field constructed seams shall be tested, and repaired if necessary, in accordance with the manufacturer's recommendations.

(2) ((Synthetic liners:)) Permanent storage facilities with storage containers of one hundred thousand gallons or greater may use clay soil liners: Provided, That:

(a) ((Synthetic liners shall be chemically compatible with the materials being stored within the facility and have a minimum thickness of thirty mils +/- 1 mil. A written confirmation of compatibility and a written estimate of the life of the liner from the manufacturer shall be kept on file at the storage facility or the nearest local office from which the facility is administered.

(b) Synthetic liners shall be installed under the supervision of a qualified representative of the manufacturer, a contractor certified by the manufacturer, or a certified engineer. All field constructed seams shall be tested, and repaired if necessary, in accordance with the manufacturer's recommendations.

(3) Soil liners:)) The surface soil shall be sealed, including the berm of an earthen dike, with

a sealing agent such as sodium bentonite, attapulgite or a similar clay material((:));

(b) The liner shall be constructed in accordance with reliable civil engineering practices, to achieve a coefficient of permeability not to exceed 1×10^{-6} cm/sec and shall be maintained at 1×10^{-5} cm/sec with a thickness of not less than six inches;

(c) The floor and internal walls of the containment area shall have a protective barrier to prevent desiccation, evaporation, freeze, thaw, or other physical damage.

((4) Exemptions. A liner need not be installed directly under a storage container having a capacity of one hundred thousand gallons or more which has been constructed on site and put into use prior to March 1, 1994. Provided, That one of the following alternative procedures are complied with, certified to in writing by an official of the company which owns the storage container, and the certificate is filed with the department.

(a) Alternative 1 is as follows:

(i) A second bottom made of steel shall be constructed for the storage container. The second bottom shall be placed over the original bottom and separated from the original bottom by a support medium designed to provide for leak detection between the two bottoms and properly support the new bottom. This support layer may consist of gravel, sand, concrete (grooved to provide leak detection), steel or other grillage, wire mesh, etc. as dictated by good engineering practice.

(ii) The original bottom of the storage container shall be tested for leaks before the support layer and second bottom are installed. A record of the test shall be kept on file at the storage facility or at the nearest local office from which the storage facility is administered.

(iii) The newly constructed bottom shall be tested for leaks before any liquid fertilizer is stored on the newly constructed bottom. A record of the test shall be kept on file at the storage facility or at the nearest local office from which the storage facility is administered.

(iv) There shall be a system to readily detect leaks through the newly constructed bottom into the support layer. Leak tests should be conducted at not more than six-month intervals with a record of such tests to be kept at the storage facility or at the nearest local office from which the storage facility is administered.

(b) Alternative 2 is as follows:

(i) The storage container shall be emptied, cleaned, and tested for leaks. The walls and floor of the storage container shall be tested to assure that welds and thickness of steel plates are sound and adequate to contain the fertilizers. A record of the inspection, test results, and of any repairs made shall be submitted to the department and maintained by the owner or operator.

(ii) The interior floor and twelve inches up the wall of the storage container shall be coated with a liner to inhibit corrosion. A record of this procedure shall be submitted to the department and maintained by the owner or operator.

(iii) A test for leaks and liner deterioration or metal corrosion shall be conducted every five years thereafter. A record of the test findings and of indicated repairs and maintenance shall be maintained by the owner or operator.

(c) Alternative 3 is as follows:

(i) Monitoring devices shall be installed in angled borings under each tank. These monitoring devices shall constitute a leak detection system for each tank in advance of the point at which any leak would reach groundwater.

(ii) The number, length, and depth of each boring shall be determined on the basis of site characteristics. The array of monitoring devices under each tank shall constitute the best practical early warning detection system for tank leakage.

(iii) Each monitoring plan under alternative 3 shall be implemented only upon review and written approval of the department and shall include inspection/monitoring schedules.))

NEW SECTION

WAC 16-201-031 Secondary containment of liquid bulk fertilizers – Floors and Linings

– Alternative procedures. A floor and/or liner need not be installed directly under a storage container having a capacity of one hundred thousand gallons or more which has been constructed on site and put into use prior to March 1, 1994: Provided, That one of the following alternative procedures are complied with, certified to in writing by an official of the company which owns the storage container, and the certificate is filed with the department:

(1) Alternative 1 is as follows:

(a) A second bottom made of steel shall be constructed for the storage container. The second bottom shall be placed over the original bottom and separated from the original bottom by a support medium designed to provide for leak detection between the two bottoms and properly support the new bottom. This support layer may consist of gravel, sand, concrete (grooved to provide leak detection), steel or other grillage, wire mesh, etc. as dictated by good engineering practice.

(b) The original bottom of the storage container shall be tested for leaks before the support layer and second bottom are installed. A record of the test shall be kept on file at the permanent storage facility or at the nearest local office from which the permanent storage facility is administered.

(c) The newly constructed bottom shall be tested for leaks before any liquid fertilizer is stored on the newly constructed bottom. A record of the test shall be kept on file at the permanent storage facility or at the nearest local office from which the permanent storage facility is administered.

(d) There shall be a system to readily detect leaks through the newly constructed bottom into the support layer. Leak tests should be conducted at not more than six-month intervals with a record of such tests to be kept at the permanent storage facility or at the nearest local office from which the permanent storage facility is administered.

(2) Alternative 2 is as follows:

(a) The storage container shall be emptied, cleaned, and tested for leaks. The walls and floor of the storage container shall be tested to assure that welds and thickness of steel plates are sound and adequate to contain the fertilizers. A record of the inspection, test results, and of any repairs made shall be submitted to the department and maintained by the owner or operator.

(b) The interior floor and twelve inches up the wall of the storage container shall be coated with a liner to inhibit corrosion. A record of this procedure shall be submitted to the department and maintained by the owner or operator.

(c) A test for leaks and liner deterioration or metal corrosion shall be conducted every five years thereafter. A record of the test findings and of indicated repairs and maintenance shall be maintained by the owner or operator.

(3) Alternative 3 is as follows:

(a) Monitoring devices shall be installed in angled borings under each storage container. These monitoring devices shall constitute a leak detection system for each storage container in advance of the point at which any leak would reach groundwater.

(b) The number, length, and depth of each boring shall be determined on the basis of site characteristics. The array of monitoring devices under each storage container shall constitute the best practical early warning detection system for storage container leakage.

(c) Each monitoring plan under alternative 3 shall be implemented only upon review and written approval of the department and shall include inspection/monitoring schedules.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-040 Secondary containment of liquid bulk fertilizers—Prefabricated

facilities. (1) ~~((A-p))~~ Prefabricated ~~((facility))~~ secondary containment shall be composed of a rigid prefabricated basin having both a base and walls constructed of steel or synthetic materials which are resistant to corrosion, puncture or cracking. Materials used in the ~~((facility))~~ secondary containment shall be chemically compatible with the products being stored within the ~~((facility))~~ secondary containment. A written confirmation of compatibility from the basin manufacturer shall be kept on file at the permanent storage facility or at the nearest local office from which the permanent storage facility is administered.

(2) The prefabricated ~~((facility))~~ secondary containment shall be designed and installed to withstand all foreseeable loading conditions, including the tank load and a full hydrostatic head of any discharged liquid. Multiple basins connected to provide the capacity required in WAC 16-201-025 shall be connected in a manner which assures an adequate transfer of discharged liquid between basins.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-050 Secondary containment of liquid bulk fertilizers--Discharge outlets or valves. Secondary containment ~~((facilities))~~, including prefabricated ~~((facilities))~~ secondary containment, shall not have discharge outlets or valves. Discharge outlets or valves on existing ~~((facilities))~~ secondary containment shall be sealed. Secondary containments ~~((facilities))~~ may be interconnected.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-060 Secondary containment of liquid bulk fertilizers--Storage with other ~~((commodities))~~ material. (1) No ~~((other commodity except fertilizer, fertilizer rinsate, recovered fertilizer discharges, or pesticide rinsate))~~ material may be stored within ~~((a))~~ liquid fertilizer secondary containment ~~((facility))~~ unless the material is compatible with all other material stored within the secondary containment. For the purposes of this section, compatible means that the materials, when mixed together, will not react in a manner that will cause a human health or environmental hazard.

~~((2) A liquid fertilizer secondary containment facility may share a wall or portion of a wall, with a liquid pesticide secondary containment facility.))~~

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-070 Secondary containment of liquid bulk fertilizers--Precipitation accumulations. Precipitation may not be allowed to accumulate in ~~((a))~~ secondary containment ~~((facility))~~ to the point where it ~~((may tend to))~~:

- (1) Reduces the capacity of the ~~((facility))~~ secondary containment below one hundred ten percent of the volume of the largest storage container within the area plus the displacement of all other ~~((tanks))~~ storage containers, appurtenances, and other items within the containment area~~((:));~~
- (2) Increases corrosion of storage containers or appurtenances~~((:));~~ or
- (3) Impairs the stability of storage containers.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-080 Secondary containment of liquid bulk fertilizers--Recovery of discharges. Discharges within ~~((a))~~ secondary containment ~~((facility))~~ shall be immediately recovered.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-110 Primary containment of liquid bulk fertilizers--Prohibition against underground storage. No person shall store liquid bulk fertilizer, fertilizer spills or rinsates in an underground storage container or surface impoundment, ((σ)) such as a lined pond or pit. A watertight catch basin or sump used for the temporary collection of rinsate or runoff from transfer and loading areas is exempt from this section.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-120 Primary containment of liquid bulk fertilizers--Abandoned storage containers. (1) Storage containers used at a permanent storage facility, or used for temporary field storage to hold liquid bulk fertilizer or fertilizer rinsate are considered abandoned if they have been out of service for more than six consecutive months because of a weakness or leak, or have been out of service for any reason for more than two years without an integrity test having been performed.

(2) Abandoned underground storage containers containing fertilizer which meet the definition of hazardous substance underground storage tank system in chapter 173-360 WAC are subject to the applicable requirements in that chapter.

(3) Abandoned above ground storage containers shall be thoroughly cleaned. All hatches on the storage containers shall be secured and all valves or connections shall be severed or plugged with vents being left functional.

(4) Abandoned storage containers shall be posted with a clearly legible tag with the words "Out of Service."

(5) Abandoned storage containers shall not be allowed to be put back in service on the same site without first installing secondary containment protection.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-130 Primary containment of liquid bulk fertilizers--Anchoring of storage containers. Storage containers shall be secured, ((αs)) if necessary, to prevent flotation or instability which might occur as a result of liquid accumulations within a secondary containment facility.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-170 Primary containment of ((liquid)) bulk fertilizers--Labeling. (1) All bulk fertilizer storage containers shall be clearly and conspicuously labeled to identify the contents.

(2) All bulk fertilizer storage containers shall bear a label or placard in accordance with Uniform Fire Code Standard No. 79-3, identifying the material therein.

(3) All bulk fertilizer storage containers used for temporary field storage shall be labeled with the owner's name, the capacity of the tank, and an identifying number. Lettering shall be a minimum of two inches in height and in a color contrasting to the background.

(4) All bulk fertilizer storage containers used for temporary field storage shall have attached, in a weather-proof enclosure, a record of the date the storage container was put in place.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-180 Primary containment of liquid bulk fertilizers--Temporary field storage. (1) Storage containers used for temporary field storage of liquid bulk fertilizer shall comply with the following sections: WAC 16-201-100, 16-201-110, 16-201-120, 16-201-140, 16-

201-150, and 16-201-170.

(2) All bulk fertilizer storage containers and appurtenances used for temporary field storage shall be inspected for leakage and soundness daily when in use.

(3) Valves on storage containers shall be closed and locked or otherwise secured when left unattended.

(4) The physical location and identifying number of all temporary field storage shall be provided to the department upon request.

(5) The department may issue a permit to extend the time temporary field storage may be in one place during any six-month period due to weather related conditions upon written request. No advisory group review, pursuant to WAC 16-201-280(2) is available for this type of permit.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-190 Operational area containment of liquid fertilizers--Permanent storage facility. (1) All operational area activities shall take place on or within ((an)) operational area containment ((facility)): Provided, That during the unloading or loading of railcars, marine vessels, or manned trucks when product is unloaded from direct shipments from manufacturers, individual basins or portable storage containers shall be used to recover spillage and leakage from transfer connections and pumps.

(2) ((The)) Operational area containment ((facility)) shall be designed and constructed to contain fertilizers, rinsates, washwater and other materials spilled or deposited during mixing, loading, unloading, draining, rinsing and washing activities.

(3) The walls and floor of operational area containment ((facility)) shall be constructed of steel, poured reinforced concrete, precast concrete modules, solid masonry, or other materials ((with similar permeability.)) or combination of materials that:

(a) Are designed to withstand a full hydrostatic head of any discharged liquid;

(b) Have sufficient thickness and chemical resistance to contain a release until it is recovered;

(c) Are constructed and maintained to a permeability standard of 1×10^{-6} cm/sec as determined by ASTM test method D-5084 Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter or other test method approved by the department.

(4) If synthetic materials are used in construction they shall be chemically compatible with the products handled at the site. A written confirmation of compatibility from the manufacturer shall be kept on file at the site or the nearest location from which the site is administered.

(5) ((The facility)) Operational area containment shall be constructed to withstand the weight of any vehicles or storage containers which will be on ((the facility)) it.

(6) ((The facility)) Operational area containment shall be constructed with sufficient surface area, using curbs or other means, to prevent any discharge from leaving the containment area. The ((facility)) operational area containment shall have a capacity of at least fifteen hundred gallons ((of containment)). If no storage container or mobile storage container used at the ((facility)) operational area containment to transfer liquid bulk fertilizers has a capacity of more than one thousand gallons, the operational area containment ((facility)) shall be of adequate size and design to contain one hundred twenty-five percent the capacity of the largest storage container, or mobile storage container used.

(7) ((The)) Operational area containment ((facility)) shall slope to ((a)) one or more liquid tight collection points or sumps that allows spilled or deposited materials to be easily recovered.

(8) An above ground ((tank)) storage container may be used in conjunction with the operational area containment ((facility)) to meet the capacity requirement. If an above ground ((tank)) storage container is used ((for temporary storage)) to meet the capacity requirement, the

~~((tank)) storage container shall be located within secondary containment. The ((tank)) storage container shall be clearly and conspicuously labeled "fertilizer rinsate."~~

~~(9) Any pump used for recovering material from the operational area containment ((facility)) shall be manually activated.~~

~~((9)) (10) The operational area containment ((facility)) shall not have a discharge outlet or valve. Discharge outlets or valves on existing ((facilities)) operational areas shall be sealed. Operational area containments ((facilities)) may be interconnected.~~

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-200 Operational area containment of liquid fertilizers—Temporary field storage. (1) During loading and unloading of liquid bulk fertilizer at temporary field storage locations individual basins or portable storage containers shall be used to recover spillage and leakage from transfer connections and pumps.

(2) Liquid bulk fertilizer storage containers used for temporary field storage shall be located at least one hundred feet from wells and surface water except, for purposes of this section, irrigation water flowing directly to a field, or on a field, is not considered surface water unless the water could be carried beyond the field being irrigated.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-220 Backflow prevention. (1) ~~((If plumbing))~~ When piping within ((a)) secondary containment ((facility)) or an operational area ((facility)) is directly connected to a water source such as a well or public water ((supply)) system, an approved air gap or an approved reduced pressure principle ((a)) backflow prevention ((device)) assembly (RPBA) shall be installed to protect the water source. ((All equipment)) Approved air gaps and approved RPBA's shall be installed, operated, inspected and/or tested and maintained per WAC 246-290-490 ((and manufacturer's recommendations. The safety equipment shall be one of the following:

~~—— (a) A reduced pressure principle backflow prevention assembly approved by the Washington State Department of Health.~~

~~—— (b) Air gap separation. Air gap is a physical separation between the free flowing discharge end of a water supply line and the fill opening of a water storage tank. The end of the discharge pipe shall be located a distance of at least two times the diameter of the supply line measured vertically above the flood rim of the tank. The gap should be increased if the fill pipe is located next to a wall. If the discharge pipe is located within a secondary containment or operational area facility the end of the pipe shall be at least two pipe diameters above the highest liquid holding capacity of the containment facility.)~~

~~(2) ((Reduced pressure principle backflow prevention assemblies)) Approved RPBA's shall be inspected and tested by a Washington State Department of Health certified backflow assembly tester, and approved air gaps shall be inspected by a Washington State Department of Health certified backflow assembly tester or cross-connection control specialist:~~

~~(a) At the time of installation, alteration or relocation, and~~

~~(b) ((once per year and air gap systems shall be inspected once per year by a Washington State Department of Health certified backflow assembly tester pursuant to WAC 246-290-490)) At least on an annual schedule thereafter.~~

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-230 Fertilizer spill and rinsate management. (1) Fertilizer ~~((products; rinsates or washwater spilled or accumulated))~~ spills within ~~((a))~~ secondary containment or

operational area ((facility)) containment shall be immediately recovered. ((These materials may be applied at normal fertilizer rates or used in a liquid mixing operation. The materials may be stored for later use:))

(2) Fertilizer rinsate shall be removed from secondary containment and operational area containment as necessary to ensure the capacity of the containment area does not fall below the levels required by this chapter. ((Any liquid that accumulates at a collection point or in a)) Rinsate accumulations collected in an operational area water-tight sump shall ((be removed within twenty-four hours when the facility is in operation)) not exceed the capacity of the sump at the end of the business day.

(3) ((Recovered)) Fertilizer spills ((, sedimentation,)) or rinsates ((, washwater, contaminated precipitation or other contaminated debris)) shall ((be contained and used or properly disposed of: Fertilizer containing materials shall)) not be released to the environment unless the ((release is an agronomic application)) material is applied at normal fertilizer rates, used in fertilizer blends, used in a fertilizer manufacturing process, or disposed of properly.

(4) Recovered spills or rinsates in excess of 500 gallons must be contained in a storage container within secondary containment. The storage container must be clearly and conspicuously labeled to identify the content.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-240 Maintenance and inspection. (1) The operator of a fertilizer bulk storage facility shall inspect and maintain storage containers, appurtenances, secondary containment ((facilities)) and operational area ((facilities)) containment to minimize the risk of a fertilizer release. The inspection shall include a visual observation for any evidence of leaks, spills, cracks, solar decay or wear.

(2) Maintenance of the fertilizer bulk storage facilities shall be performed as needed to ensure that the integrity of the bulk fertilizer storage containers, secondary containment ((facilities)) and operational area containment ((facilities)) is maintained.

(3) Bulk fertilizer storage containers and appurtenances shall be inspected at least once per month when in use. Secondary containment and operational area ((facilities)) containment shall be inspected at least once per month when in use.

(4) All secondary and operational area ((facilities)) containment shall be maintained free of debris and foreign matter.

(5) A written record of all inspections and maintenance shall be made on the day of the inspection or maintenance and kept at the storage site or at the nearest local office from which the storage site is administered.

(6) Inspection records shall contain the name of the person making the inspection, the date of the inspection, conditions noted and maintenance performed.

AMENDING ORDER (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-250 Recordkeeping requirements. Records required by this section and documents necessary to ensure compliance with this chapter shall be made available for inspection and copying by the department. The following records shall be maintained at ((fertilizer bulk)) permanent storage facilities or at the nearest local office from which the permanent storage facility is administered.

(1) A record of construction materials and methods of construction to show compliance with WAC 16-201-025, 16-201-028, 16-201-030, 16-201-040, 16-201-050, and 16-201-190. These records shall be maintained as permanent records.

(2) A record of the method(s) used to use or dispose of product or contaminated materials

recovered from discharges outside secondary or operational area containment ((facilities)). This record applies only to discharges required to be reported to the Washington state department of ecology by the Washington state Dangerous waste regulations, chapter 173-303 WAC. These records shall be maintained for a period of at least three years.

(3) Inspection and maintenance records required by WAC 16-201-240. These records shall be maintained for a period of at least three years.

(4) Manufacturer's compatibility statements required by WAC 16-201-030 and 16-201-040. These records shall be maintained as permanent records.

(5) A copy of the permanent storage facility's spill response plan required by WAC 16-201-260. This record shall be maintained as a permanent document.

(6) Records required by WAC 16-201-100(9). These records shall be maintained as permanent records.

(7) Records required by WAC 16-201-220, Backflow prevention.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-260 Spill response plan. (1) The operator of a permanent storage facility shall prepare a written spill response plan for the permanent storage facility. If all or portions of the information required by the spill response plan have been prepared for plans required by other government agencies, they need not be prepared for this plan: Provided, That the information is readily accessible to emergency responders and department personnel. However, when copies of the plan are distributed, all required information shall be provided.

The plan shall include the following elements:

(a) The identity and telephone numbers of the persons and agencies who are to be contacted in the event of a spill, including persons responsible for the stored fertilizer.

(b) For each fertilizer stored at the permanent storage facility a complete copy of the storage container labeling required in WAC 16-201-170, and the labeling required to accompany sale of the fertilizer under the Washington Commercial Fertilizer Act, chapter 15.54 RCW.

(c) A material safety data sheet for each fertilizer stored at the permanent storage facility.

(d) The procedures to be used for controlling and recovering, or otherwise responding to a spill for each type of bulk fertilizer stored at the permanent storage facility.

(e) The procedures to be followed in using or disposing of a recovered spill.

(2) The plan shall be kept current at all times.

(3) A copy of the spill response plan shall be kept readily available for inspection and use at the permanent storage facility or at the nearest local office from which the permanent storage facility is administered and shall be available for inspection and copying by the department.

(4) A copy of the spill response plan shall be provided to the local fire department.

(5) Persons employed at ((bulk fertilizer)) permanent storage facilities shall be trained in spill response procedures pursuant to the spill response plan.

(6) Emergency equipment and supplies. Every permanent storage facility shall have access to pumps and recovery containers which can be used to control and recover spills. Pumps, recovery containers and persons capable of deploying and operating them shall be readily available in an emergency. Pumps and recovery containers may include those operated by a local fire department or other persons: Provided, That the use and availability of the pumps and recovery containers is arranged in advance as part of the spill response plan. Absorbent materials and other equipment suitable for the control and cleanup of smaller spills shall be available at the permanent storage facility. The permanent storage facility shall maintain a list showing the types and locations of clean-up supplies and equipment. The list shall be maintained at the permanent storage facility or the nearest local office from which the facility is administered.

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-270 ((Compliance schedule)) Effective dates. (((1) New permanent storage facilities placed in service after March 1, 1994, shall immediately comply with this chapter.)) The requirements of this chapter shall be effective immediately: Provided, That

(1) All

(((2) Existing)) permanent storage facilities that have storage containers of one hundred thousand gallons or greater and that were in operation prior to March 1, 1994, shall comply ((with the following schedule: Provided, That permanent storage facilities which have tanks of one hundred thousand gallons or greater shall have a period of seven years from March 1, 1994, to comply)) with WAC 16-201-020 through 16-201-080, and 16-201-190 by March 1, 2001;((-))

(2) Storage of bulk fertilizer, fertilizer spills or rinsates shall comply with WAC 16-201-110 within 30 months of the effective date of this rule;

(3) Fertilizer spills or rinsates must be contained in compliance with WAC 16-201-230(4) within 30 months of the effective date of this rule.

((a) Secondary containment

WAC 16-201-020 through 16-201-080

except as otherwise provided in

WAC 16-201-025(3) _____ five years after March 1, 1994

(b) Primary containment

WAC 16-201-100 through

16-201-180 _____ one year after March 1, 1994

(c) Operational area

containment WAC 16-201-190

_____ five years after March 1, 1994

(d) Dry bulk fertilizer

storage and handling

WAC 16-201-210 (1), (2), (4) _____ one year after March 1, 1994

WAC 16-201-210(3) _____ five years after March 1, 1994

(e) Backflow prevention

WAC 16-201-220 _____ immediate

(f) Rinsate management

WAC 16-201-230 _____ one year after March 1, 1994

(g) Maintenance and inspection

WAC 16-201-240 _____ one year after March 1, 1994

(h) Recordkeeping requirements

WAC 16-201-250 _____ one year after March 1, 1994

(i) Spill response plan

WAC 16-201-260 _____ one year after March 1, 1994.))

AMENDATORY SECTION (Amending Order 5018, filed 11/2/93, effective 3/1/94)

WAC 16-201-280 Permits. (1) The department may issue a permit exempting any person from a requirement under this chapter if compliance is not technically feasible in the judgment of the department and the department finds that alternative measures provide substantially similar protection. All information required to prove that substantially similar protection is possible shall be provided to the department by the person requesting the permit.

(2) At the request of the department, advisory group, or permittee, an advisory group appointed by the director shall evaluate and advise the department on ((a)) any request((s)) for permit((s)) from this chapter.