Department of Agriculture

Adopted Permanent Rules Relating to Bulk Pesticide Storage

Rules as Adopted

1505.2010 DEFINITIONS.

Subpart 1. **Scope.** As used in parts 1505.2010 to 1505.2150, the words and terms defined in this part have the meanings given them.

Subp. 2. **Appurtenances.** "Appurtenances" means valves, pumps, fittings, pipes, hoses, and metering devices that are connected to a bulk pesticide container or used for transferring liquid bulk pesticide between containers.

Subp. 3. **Bulk pesticide.** "Bulk pesticide" means a pesticide that is held in an individual container with a pesticide content of 56 U.S. gallons or more, or 100 pounds or more net dry weight, including mini-bulk pesticide unless otherwise specified. Only technical grade, formulated grade, and other similar grades of ~~undiluted~~ bulk pesticide are included in this definition.

Subp. 4. **Bulk pesticide storage facility.** "Bulk pesticide storage facility" means a site at which a bulk pesticide is stored~~,-distributed,-or-repackaged~~ by a person who distributes or repackages the bulk pesticide.

Subp. 5. **Commissioner.** "Commissioner" means the commissioner of agriculture or the commissioner's authorized agent.

Subp. 6. **Containment area.** "Containment area" means a facility, device, or system or a combination of these designed to prevent the escape or movement of a pesticide from the place it is stored or kept under conditions that might otherwise result in ~~contamination-of~~ unreasonable adverse effects on the environment.

Subp. 7. **Custom mix.** "Custom mix" means a mixture of registered pesticide or pesticide-fertilizer mixes prepared by a

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dealer in response to a specific request of an end user of those products.

Subp. 8. **Disposal.** "Disposal" means the release, deposit, injection, dumping, spilling, leaking, or placing of pesticide into or on land or water so that the pesticide may enter the environment or be emitted into the air or released into any surface water or groundwater. This definition, however, does not include pesticide use allowable under Minnesota Statutes, chapter 18B or rules adopted under Minnesota Statutes, chapter 18B.

Subp. 9. **Dry pesticide.** "Dry pesticide" means pesticide that is in solid form before application or mixing for application, including formulations such as dusts, wettable powders, dry flowable powders, and granules.

Subp. 10. **Groundwater.** "Groundwater" means the water in the zone of saturation in which all of the pore spaces of the subsurface material are filled with water. The water that supplies springs and wells is groundwater.

Subp. 11. **Inorganic soil.** "Inorganic soil" means a soil that is a silty clay loam or finer with less than six percent organic matter. This definition pertains to the specific type of soil used to construct walls and liners of containment areas.

Subp. 12. **Liquid pesticide.** "Liquid pesticide" means pesticide in liquid form, including solutions, emulsions, suspensions, and slurries.

Subp. 13. **Mini-bulk pesticide.** "Mini-bulk pesticide" means an amount of liquid pesticide greater than 56 U.S. gallons (211 liters) but not greater than 499 U.S. gallons (1,892 liters), or an amount of dry pesticide greater than 100 pounds (45 kilograms) but not greater than 499 pounds (225 kilograms), that is held in a single container designed for ready handling and transport.

Subp. 14. **New bulk pesticide storage facility.** "New bulk pesticide storage facility" means a bulk pesticide storage facility established after July 1, 1989, at a site that was not previously used as a bulk pesticide storage facility. A

facility is established, for purposes of this subpart, on the date it is first placed in use.

Subp. 15. **Previously established bulk pesticide storage facility.** "Previously established bulk pesticide storage facility" means a bulk pesticide storage facility established before July 1, 1989. A facility is established, for purposes of this subpart, on the date it is first placed in use.

Subp. 16. **Release.** "Release" means a pesticide release incident as defined in Minnesota Statutes, section 18B.01, subdivision 12, including a pesticide released into a secondary containment or loading area.

Subp. 17. **Release response plan.** "Release response plan" means a plan describing procedures employed for the notification of appropriate state agencies, stopping a release, recovering releases, and cleaning up the release area.

Subp. 18. **Repackaging.** "Repackaging" means a registrant's or manufacturer's authorized ~~transferring~~ transfer and subsequent labeling of a registered pesticide from a bulk pesticide container to another pesticide container 56 U.S. gallons or more in an unaltered state in preparation for sale delivery to another dealer or user.

Subp. 19. **Revised bulk pesticide storage permit application.** "Revised bulk pesticide storage permit application" means an application for a bulk pesticide storage permit filed with the commissioner detailing substantial alterations that are to be made to a facility.

Subp. 20. **Storage container.** "Storage container" means a container used for the fixed storage of bulk pesticide, including a rail car, nurse tank, mini-bulk tank, or other mobile container for more than ten consecutive days. This definition does not include a container used solely for emergency storage of leaking pesticide containers that are less than 56 U.S. gallons or pesticide rinsate holding tanks.

Subp. 21. **Substantially altering.** "Substantially altering" includes, but is not limited to, the modification of a bulk pesticide storage facility through the changing, addition, or

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removal of bulk pesticide storage containers, appurtenances, load areas, secondary containment, or any modifications that may result in reducing the effectiveness of safeguards. This definition does not include the routine maintenance of bulk pesticide storage containers, load areas, secondary containment, or appurtenances.

Subp. 22. **Surface water.** "Surface water" means water that rests or flows on the surface of the ground.

~~Subp. 23. Tank mix. "Tank mix" means a mixture of registered pesticides prepared according to label directions for site application.~~

1505.2020 NEW FACILITIES.

Subpart 1. **Permit required.** No person may construct or operate a new bulk pesticide storage facility without first obtaining a permit under parts 1505.2040 and 1505.2050.

Subp. 2. **Information required before construction.** After being granted a permit by the commissioner, and before beginning construction of the bulk pesticide storage facility, an owner or manager shall submit to the commissioner:

A. the name, address, and telephone number of the persons who will construct, install, or modify the facility; and

B. copies of any permits or letters of authorization required by any local unit of government for the construction, installation, or modification of the facility.

Subp. 3. **Compliance within 90 days.** Within 90 days after being granted a permit by the commissioner, a new bulk pesticide storage facility owner or manager shall comply with parts 1505.2010 to 1505.2150.

Subp. 4. **Time extension.** The commissioner shall grant a time extension of up to 180 days for delays due to construction or equipment or material procurement ~~may be granted by the commissioner~~ if requested in writing by the facility owner or manager. The commissioner shall set forth in writing the reasons for granting or denying a requested time extension within 15 days of the request.

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1505.2030 PREVIOUSLY ESTABLISHED FACILITIES.

A person who operates a bulk pesticide storage facility established before July 1, 1989, must comply with items A to C.

A. The person must, by July 1, 1990, file with the commissioner an application for a bulk pesticide storage permit under parts 1505.2040 and 1505.2050 and comply with parts 1505.2010, 1505.2030, 1505.2060, and 1505.2090 to 1505.2150.

B. The person must, by July 1, 1991, comply with parts 1505.2070 and 1505.2080. The commissioner shall grant a time extension of up to one year ~~may be granted by the commissioner~~ for delays due to construction or equipment or material procurement, if requested in writing by the facility owner or manager. The commissioner shall set forth, in writing, the reasons for granting or denying a requested time extension within 15 days of the request.

C. After being granted a bulk pesticide storage permit by the commissioner, and before beginning any construction or ~~modification of~~ substantially altering an existing bulk pesticide storage facility, the person must submit to the commissioner:

(1) the name, address, and telephone number of the persons who will construct, install, or modify the facility; and

(2) copies of any permits or letters of authorization required by any local or state unit of government for the construction, installation, or modification of the facility.

1505.2040 BULK PESTICIDE STORAGE PERMIT.

Subpart 1. **Commissioner's review of application.** The commissioner shall review an initial application as submitted under part 1505.2050 within 30 days of receipt and either issue a bulk pesticide storage permit or advise the applicant, in writing, of an unsatisfactory review and detail all changes necessary in order to achieve compliance. Upon receipt of the additional requested compliance information from a person, the

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commissioner has 15 days in which to issue a bulk pesticide storage permit or advise the applicant, in writing, of an unsatisfactory review and detail all changes necessary in order to achieve compliance.

Subp. 2. **Substantial alterations.** No person may substantially alter any bulk pesticide storage facility without first being granted a revised bulk pesticide storage permit from the commissioner. The person must file a revised bulk pesticide storage permit application detailing the proposed alterations with the commissioner. The commissioner shall review an application for a revised bulk pesticide storage permit within 30 days of receipt and either issue a revised bulk pesticide storage permit or advise the applicant, in writing, of an unsatisfactory review and detail all changes necessary in order to achieve compliance.

Subp. 3. **Denial; revocation; suspension~~,-modification~~.** ~~An initial-or-revised~~ After written notice and a hearing, a bulk pesticide storage permit may be denied, revoked, or suspended~~,-or-modified,-in-whole-or-in-part,~~ for one or more of the following reasons:

A. ~~violation-of-a-term-or-condition-of-the permit~~ failure to fully comply with parts 1505.2010 to 1505.2150;

B. obtaining the permit by misrepresentation or by failure to disclose all relevant facts; or

C. discovery of unreasonable adverse effects to the environment caused by the activities of the permit holder in the conduct of actions undertaken under the permit.

Subp. 4. ~~Notice.--If-a-permit-is-denied,-revoked,-or suspended,-the-commissioner-shall-send-the-applicant-a-written notice-of-denial,-revocation,-or-suspension.--Details-that formed-the-basis-of-the-decision-must-be-included.--The-owner-or manager-must-be-given-30-days-from-the-date-of-the-notice-to request-an-administrative-meeting-before-the-commissioner-to present-justification-for-an-appeal-of-the-decision.~~

~~Following-the-date-and-time-of-the-administrative-meeting,~~

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~~the commissioner has 15 days in which to analyze the facts presented and grant a permit or advise the owner or manager, in writing, of the commissioner's determination to uphold the original decision not to grant a permit.~~

~~Subp. 5.~~ **Permit transfer.** A bulk pesticide storage permit may be transferred from one person to another if an application for a permit detailing any changes and including the required fee is filed with the commissioner prior to the transfer.

Subp. ~~6~~ 5. **Permit exceptions.** Persons who store bulk pesticides in a storage container of a rated capacity of less than 500 U.S. gallons or who store bulk pesticides in individual storage containers at a site where the total storage amount of bulk pesticide is less than 500 U.S. gallons, are not required to obtain a bulk pesticide storage permit, but are required to comply with all other applicable provisions of this part.

1505.2050 APPLICATION AND PERMIT FEE.

Subpart 1. **Information required.** Application for a bulk pesticide storage permit must be on forms provided by the commissioner. The application must contain at least, but is not limited to, the following information:

A. a differentiation as to whether the bulk pesticide storage facility should be regarded as new or previously established;

B. the name, address, and telephone number of the person making application;

C. the name, address, and telephone number of the persons that will own and operate the facility;

D. the location of the facility, including its legal description;

E. photographs or a diagram of the current or proposed facility, including all buildings, tanks, fertilizer storage areas, mixing, loading, and rinsate recycling areas, vehicle washing areas, and bulk pesticide storage areas;

F. a geologic report of the facility property and the surrounding area, including maps, photographs, or diagrams of:

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(1) the land use (crop land, residential, or business) within one-quarter mile radius of the facility;

(2) the distance and direction to surface water, drainage ditches, and storm sewers within one-quarter mile radius of the facility;

(3) the distance and direction to any source of a public water supply serving the facility;

(4) the year installed, depth, direction, and distance to any well on or within 150 feet of all existing and proposed loading and secondary containment areas; and

(5) the type of soils to the three foot depth beneath the surface fill such as, but not limited to, gravel, rock, or other soils of all existing and proposed loading and secondary containment areas.

G. the number, age or condition, dimension, capacity, and material description of the liquid bulk pesticide storage containers and a list of pesticides to be stored in them, with United States Environmental Protection Agency registration numbers;

H. a certification that to the best of the owner's or manager's knowledge the loading and containment areas will be built in accordance with construction and plumbing plans submitted and will comply with the design, construction, and containment requirements of parts 1505.2070 and 1505.2080;

I. at least one scale drawing of the loading and ~~bulk pesticide~~ secondary containment areas to include a construction material specification or design guide;

J. a plumbing diagram showing the location, type, and specifications of the appurtenances used in storing or transferring bulk pesticides;

K. a copy of the release response plan as described in part 1505.2100; and

L. the person's federal Environmental Protection Agency establishment number, if required.

Subp. 2. **Fee.** The initial application for a bulk pesticide storage permit must be accompanied by the fee required

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in Minnesota Statutes, section 18B.14 for each bulk pesticide storage facility. No fee is required to apply for a revised bulk pesticide storage permit.

1505.2060 GENERAL REQUIREMENTS.

Subpart 1. **Establishment number.** A facility that repackages ~~or transfers~~ bulk pesticides ~~or custom mixes any quantity of pesticides for application by another person~~ must obtain a pesticide producer establishment number from the United States Environmental Protection Agency.

Subp. 2. **Exception.** A person who ~~tank mixes or~~ custom mixes pesticides for application by the person's firm only, is not required to secure a pesticide producer establishment number from the United States Environmental Protection Agency.

Subp. 3. **Storage containers and appurtenances.**

A. Storage containers and appurtenances must be constructed, installed, and maintained to prevent the release of liquid bulk pesticide. Storage containers and appurtenances must be structurally sound, resistant to changes in temperature extremes, and constructed of materials that are adequately thick to be structurally sound and that are resistant to corrosion, puncture, or cracking. Materials used in the construction or repair of storage containers and appurtenances may not be of a type that reacts chemically or electrolytically with stored bulk pesticide in a way that may weaken the storage container or appurtenance, create a risk of release, or adulterate the pesticide. Metals used for valves, fittings, and repairs on metal containers must be compatible with the metals used in the construction of the storage container, so that the combination of metals does not cause or increase corrosion that may weaken the storage container or its appurtenances, or create a risk of release. Storage containers and appurtenances must be designed to handle all operating stresses taking into account the foreseeable course of operations. Underground appurtenances are prohibited as part of a system designed and constructed for transferring bulk pesticides unless approved by the commissioner.

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B. Storage containers may only be constructed of stainless steel, fiberglass, polyethylene, ferrous metal, cross-linked polyolefin, or other commissioner-approved materials that are suitable for the stored bulk pesticide. Polyvinyl chloride tanks, fittings, and appurtenances are prohibited.

Ferrous metal tanks must have a protective lining that inhibits corrosion and does not react chemically with the stored pesticide.

Unlined ferrous metal tanks may be used only with proof of compatibility from the pesticide manufacturer.

C. Storage container connections, except safety relief connections, must be equipped with a shutoff valve located on the storage container or at a distance from the storage container dictated by standard engineering practice and in compliance with this part. Wetted parts inside shutoff valves and connections from the storage container to the shutoff valve must be made of stainless steel.

D. Storage containers must be equipped with a liquid level gauging device by which the level of liquid in the storage container can be readily and safely determined. A liquid level gauging device is not required if the level of the liquid in a storage container can be readily and reliably measured by other means. Liquid level gauging devices must be secured, in a safe manner, to protect against breakage or vandalism that may result in release. External sight gauges are permitted only with approval from the commissioner.

E. Meters and scales used for the sale of bulk pesticide must be compatible with the pesticide being metered or weighed.

F. Pipes and fittings must be adequately supported to prevent sagging and possible breakage because of gravity and other forces that may be encountered in the ordinary course of operations.

G. Valves must be secured and of a locking type to protect against vandalism or accidental valve openings that may

result in a release.

H. Storage containers must be equipped with a vent or other device designed to relieve excess pressure, prevent losses by evaporation, and exclude precipitation.

Subp. 4. **Anchoring of storage containers.** Storage containers must be anchored to prevent flotation or instability that might occur as a result of liquid accumulations within a secondary containment area built under part 1505.2080. Anchoring may be accomplished by guy wires, or other commissioner-approved anchors.

Subp. 5. **Security.** Storage containers must be secured against access by unauthorized persons and provide protection against access by wildlife. Appurtenances must be fenced or otherwise secured to provide reasonable protection against vandalism or unauthorized access that may result in a release. Valves on storage containers must be locked or otherwise secured except when persons responsible for facility security are present at the facility. Valves on rail cars, nurse tanks, and other mobile pesticide containers parked overnight at a storage facility must be locked or secured except when persons responsible for facility security are present at the facility.

Subp. 6. **Filling.** Storage containers must not be filled to more than 95 percent of capacity unless the storage container construction or location provides constant temperature control of the container contents.

Repackaging and delivery of bulk pesticides must be attended and supervised at all times by the owner, manager, or an employee of the facility.

Subp. 7. **Protection against damage by moving vehicles.** Storage containers and appurtenances, including pipes, must be protected against reasonably foreseeable risks of damage by trucks and other moving vehicles and objects.

Subp. 8. **Storage of dry bulk pesticide.** Except during loading, stored dry bulk pesticide must be covered by a roof or tarpaulin that will exclude precipitation from the pesticide. Storage containers must be placed on a concrete or other

impervious surfaced floor on pallets or on a raised platform to prevent the accumulation of water in or under the pesticide.

Storage facilities must be secured against entry by unauthorized persons or wildlife.

Subp. 9. **Labeling of storage containers.** Every storage container must bear a current pesticide product label as required by the United States Environmental Protection Agency.

For outside storage, the label required under this part must be placed on the storage container so as to be visible from outside of the secondary containment area. The label must be legible at all times. The type size used on the label must be that specified in Code of Federal Regulations, title 40, part 162.

1505.2070 LOADING AREAS.

Subpart 1. **Containment for liquid bulk pesticide loading sites.** An area used for the loading of liquid bulk pesticide into fixed storage containers, mobile containers, or pesticide application equipment at a bulk pesticide storage facility must be provided with a means of containment that is elevated above the surrounding area, constructed of reinforced concrete or other commissioner-approved material, and designed and constructed for the intended purpose. The means of containment must not contain a drain and must comply with either item A or B.

A. A curbed loading area without a sediment trap must comply with subitems (1) and (2).

(1) The perimeter of the area must be curbed a minimum of three inches in height to prevent run-off and the curbed surface must form a liquid-tight containment area.

(2) The curbed surface and containment area must contain a minimum of 1,000 U.S. gallons.

B. A sloped surface that contains a sediment trap must comply with subitems (1) to (3).

(1) The perimeter of the area must be curbed three inches in height to prevent runoff and must form a liquid-tight containment area.

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(2) The area must be sloped to a sediment trap used only for the temporary collection of spilled or released pesticides. The sediment trap may not be greater than two feet deep or hold more than ~~150~~ 109 U.S. gallons.

(3) The area must contain a minimum of 1,000 U.S. gallons.

Subp. 2. **Containment for pesticide-impregnated fertilizer loading sites.** An area used for the loading of pesticide impregnated fertilizer into fixed storage containers, mobile containers, or pesticide application equipment at a bulk pesticide storage facility must be provided with the means of containment in items A to C.

A. The containment area for pesticide-impregnated fertilizer loading must be elevated above the surrounding area, be constructed of reinforced concrete or other commissioner-approved material, and be designed and constructed for the intended purpose. A scale with a liquid-tight containment area is acceptable.

B. The containment area must be of adequate size to fully hold the largest fixed storage container, mobile containers, or commercial pesticide application equipment that will be loaded on the area.

C. The containment area must be protected or managed in a manner that will prevent pesticide-contaminated runoff from leaving the area.

Subp. 3. **Load area exceptions and underground plumbing.**

A. If load areas for fixed storage containers, mobile containers, or pesticide application equipment are physically separated from one another, each separate load area must be of a design, size, and construction to contain a minimum of 500 U.S. gallons.

B. If no bulk pesticide storage container at the storage facility has a rated capacity of more than 500 U.S. gallons, the load area must be of a design, size, and construction to contain a minimum of 500 U.S. gallons.

If no bulk pesticide storage container at the storage

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facility has a rated capacity of more than 250 U.S. gallons, the load area must be of a design, size, and construction to contain a minimum of 250 U.S. gallons.

C. A load area is not required for areas used for loading anhydrous ammonia tanks with pesticides used to control the nitrification process, if:

(1) the bulk pesticide storage container, pump, and associated connections are located within a secondary containment area;

(2) all pesticide delivery hoses are placed in the secondary containment area between uses;

(3) no aluminum components are used; and

(4) all pesticide releases are immediately abated and recovered.

D. Any underground plumbing used for transferring rinsates or sediment from a sediment trap to rinsate tanks must be designed, constructed, installed, and maintained to prevent the release of pesticides to the environment and the backflow of pesticide rinsates to the sediment trap.

1505.2080 SECONDARY CONTAINMENT AREAS.

Subpart 1. **General requirements.** Liquid bulk pesticide storage containers must be confined to a secondary containment area that is adequate, in the event of a release, to prevent the movement of liquid pesticides to surface or ground water. The loading area as specified in part 1505.2070 must not be located, designed, or constructed in such a way so as to compromise the required secondary containment of subpart 2. The secondary containment provisions also apply to liquid bulk pesticides stored in a location covered by a roof. A secondary containment area must consist of:

A. a wall and liner as provided under subparts 4 and 5;

B. a prefabricated secondary containment basin as provided under subpart 6; or

C. other safeguards approved by the commissioner.

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Subp. 2. **Capacity.** The capacity of a secondary containment area for a bulk pesticide storage facility must be at least equal to the sum of all of the following:

A. the greatest volume of liquid bulk pesticide or liquid bulk fertilizer that could be released from the largest storage container within the secondary containment area;

B. 25 percent of the capacity of the largest liquid bulk pesticide or liquid bulk fertilizer storage container located within the secondary containment area for an outdoor storage container, or ten percent of the capacity of the largest liquid bulk pesticide container or liquid bulk fertilizer if stored in a location covered by a roof; and

C. the total volume of released liquid which would be displaced by the portions of all other storage containers within the secondary containment area to the height of the containment wall and all other fixtures and materials located within the secondary containment area (including pesticide or fertilizer diluent, empty pesticide containers, recovered pesticide or fertilizer releases, and liquid pesticide or fertilizer metering equipment).

Subp. 3. **Storage with other commodities or equipment.**

A. Liquid bulk pesticide, liquid bulk fertilizer, pesticide or fertilizer diluent, empty pesticide containers, recovered pesticide or fertilizer releases, or liquid pesticide or fertilizer metering equipment may be stored within the bulk pesticide secondary containment area.

B. The total containment capacity calculated in subpart 2 may not be compromised by storing liquid bulk pesticide or liquid bulk fertilizer, pesticide or fertilizer diluent, pesticide containers, pesticide or fertilizer releases, pesticide or fertilizer metering equipment, or other equipment or products in amounts greater than the amounts which were originally calculated as necessary displacement in subpart 2.

C. A liquid bulk pesticide storage containment area may be located within the boundary of a liquid bulk fertilizer containment area if:

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(1) the containment areas are separated by a wall described in subpart 4;

(2) the bulk pesticide is contained in an anchored prefabricated containment unit as described in subpart 6; or

(3) each bulk pesticide storage container and its appurtenances is effectively protected from corrosion and flotation by liquid bulk fertilizers.

Subp. 4. **Walls.** The walls of a secondary containment area must be made of ferrous metal, inorganic soil, stainless steel, reinforced concrete, or solid reinforced masonry and must be designed to withstand a ~~fully~~ full hydrostatic head of any released liquid. Cracks and seams must be sealed as needed to prevent leakage. Walls constructed of inorganic soil must be lined as provided under subpart 5, item D, be protected from erosion, and have a horizontal to vertical slope of at least three to one, unless a steeper slope is consistent with good engineering practice. Walls may not exceed six feet in height above the interior grade.

A. All bulk pesticide tanks must be placed a minimum of one foot from a secondary containment area wall.

B. Tanks over ten feet high stored outdoors must be located at least three feet from the secondary containment area wall.

C. The walls of a secondary containment area may not contain a drain or other similar opening.

D. Masonry walls must be reinforced, capped with concrete, and parged on the interior.

E. The joint between a masonry wall and any floor or subsurface that it is constructed on must be constructed, sealed, and protected in such a way that it prevents any pesticide leakage from leaving the containment area.

Subp. 5. **Lining.**

A. The base of a secondary containment area and any inorganic soil walls of a secondary containment area must be lined with reinforced concrete, a synthetic liner, an inorganic

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soil liner, ferrous metal, or stainless steel designed to limit the permeability of the base and walls. Liners must meet the requirements of this subpart. The base of a secondary containment area may not contain a drain or other similar opening used to release pesticides or precipitation. Dissimilar materials may not be used together for a wall and liner combination unless approved by the commissioner.

B. Concrete liners must be designed according to good engineering practices to withstand any foreseeable loading conditions, including a full hydrostatic head of released liquid. Cracks and seams must be sealed to prevent leakage.

C. Synthetic liners must have a minimum thickness of 30 mils (0.8 millimeters), be chemically compatible with the materials being stored within the secondary containment area, be photo-resistant, and be puncture resistant. Confirmation of chemical compatibility and an estimate of liner life must be retained by the firm for inspection upon request by the Department of Agriculture. The synthetic liner must be protected by a 12-inch (30-centimeter) layer of inorganic soil or half-inch diameter rounded stone above the liner and a six-inch (15-centimeter) layer of inorganic soil below the liner. Soil layers must be free of large rocks, angular stones, sticks, or other materials that may puncture the liner. Synthetic liners must be installed according to the manufacturer's recommendations and, if necessary, under the supervision of a qualified representative of the manufacturer, and all field-constructed seams must be tested, and repaired if necessary, in accordance with the manufacturer's recommendations. Pesticide releases onto the inorganic soil portion of a synthetic liner containment area must be managed by the removal of contaminated soils. Disposition of contaminated soils is subject to approval from the Department of Agriculture. Integrity of the inorganic soil portion of the synthetic liner containment area must be restored under all circumstances.

D. Soil liners must comply with subitems (1) to (5).

(1) A liner may be constructed of inorganic soil treated with bentonite clay if the liner meets the requirements of this subitem. The liner must be designed and constructed according to good engineering practices, extend a minimum of six feet beyond the wall, and achieve a coefficient of permeability not to exceed 1 X 10-6 cm/sec, with a thickness of not less than six inches (15 centimeters). The liner must be covered by an inorganic soil layer not less than six inches (15 centimeters) thick. Liners may not be constructed of frost-susceptible soils, which include silts and silty sand.

(2) Bentonite-treated liners must consist of a uniform mixture of inorganic soil and bentonite. The inorganic soil used in the mixture must have a plasticity index of at least 12. At least 30 percent by weight of the inorganic soil must pass a No. 200 sieve, and less than five percent of the inorganic soil must be retained on a No. 4 sieve. Ninety percent of the bentonite by weight must pass a No. 80 sieve, and the inorganic soil-bentonite mixture must contain at least five percent bentonite by weight.

(3) An inorganic soil may not be used as part of a soil liner if less than 50 percent by weight of the soil passes a No. 200 sieve, or if more than five percent by weight of the inorganic soil is retained on a No. 4 sieve.

(4) Soil liners must be maintained to prevent cracking or other conditions that may compromise the integrity of containment. Pesticide releases into an inorganic soil-bentonite liner containment area must be managed by removal of contaminated soils within 48 hours. ~~Disposition of contaminated soils is subject to approval from the Department of Agriculture.~~ Contaminated soils must be used at labeled rates consistent with labeled end uses for the intended crop, or stored and used later at labeled rates consistent with labeled end uses for the intended crop, or disposed of according to local, state, and federal regulations. Integrity of the inorganic soil walls and inorganic soil-bentonite liner after a spill must be restored under all circumstances.

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(5) An owner or manager shall submit to the commissioner, upon request, certification by a registered engineer practicing in the geotechnical field to verify that the coefficient of permeability of the liner does not exceed 1 X 10-6 cm/sec or that the inorganic soil lined containment area will contain released liquid to the height of the containment wall for at least 72 hours.

Subp. 6. **Prefabricated secondary containment basin.** A prefabricated secondary containment basin must 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 for the prefabricated basin must be chemically compatible with the products being stored in the bulk pesticide tank. A written confirmation of compatibility from the basin manufacturer must be kept on file at the storage facility or at the nearest local office from which the storage facility is administered. The prefabricated facility must be designed and installed to contain the amounts listed in subpart 2, including the tank load and a full hydrostatic head of any released liquid. Multiple basins connected to provide the capacity required under subpart 2, must be connected in a way that assures an unrestricted transfer of released liquid between basins. A prefabricated containment basin may not be located where fire could damage the containment vessel and compromise the intended containment.

1505.2090 RECOVERY, USE, OR DISPOSAL OF PESTICIDE RELEASES.

Subpart 1. **Loading areas and secondary containment areas.** All pesticide releases occurring in an area confined to loading areas described in part 1505.2070 and secondary containment areas described in part 1505.2080 must be recovered as soon as possible and must either be used, stored, or disposed of. Use and storage must be according to pesticide label instructions. Disposal must be according to local, state, and federal regulations. The Department of Agriculture must be immediately notified of all releases.

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Subp. 2. **Precipitation accumulations.**

A. Precipitation must not be permitted to accumulate in a secondary containment area or loading area to the point where the accumulation may tend to:

(1) compromise the ability of the secondary containment area or loading areas to contain the amounts indicated in part 1505.2070 or 1505.2080;

(2) increase the corrosion of storage containers or appurtenances; or

(3) impair the stability of storage containers.

B. Precipitation, if contaminated with pesticide residues, must be:

(1) removed and used at labeled rates on sites consistent with labeled end uses for the intended target crop;

(2) removed and stored for later use according to subitem (1);

(3) disposed of according to local, state, and federal regulations; or

(4) used at a rate of no more than five percent of the total tank mix <u>for delivery rates of 40 gallons per acre or less and ten percent for delivery rates of more than 40 gallons per acre</u>. Records must be kept indicating amounts, crop to which applied, and dates.

C. Uncontaminated precipitation may be released to a vegetated area allowing for even distribution over the entire area or used as water for mixing.

Subp. 3. **Use of pesticide rinsate, pesticide containing sludge, or pesticide containing washwater accumulations.**

A. Sludge, rinsates, or washwater generated in a pesticide loading or secondary containment area as a result of loading, washing, rinsing, clean-up, or similar practices must be:

(1) removed and used at labeled rates consistent with labeled end uses for the intended target crop;

(2) removed and stored for later use according to subitem (1); or

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(3) disposed of according to local, state, and federal regulations.

B. Sludge must be removed from a sediment trap before the trap is half full.

C. Rinsates and sludges may be used at a rate of no more than five percent of any total tank mix for delivery rates of 40 gallons per acre or less and ten percent for delivery rates of more than 40 gallons per acre. Washwater not contaminated with pesticides may be used undiluted.

D. Records indicating the amount removed (pounds or gallons), the location and acreage treated, and crops to which applied must be kept and made available for review during inspections by the commissioner. Records must be retained for a minimum of five years.

1505.2100 PREPARATION FOR CONTROL AND RECOVERY OF PESTICIDE RELEASES.

Subpart 1. **Release response plan.** The operator of a bulk pesticide storage facility shall prepare a written release response plan for the storage facility. The operator shall keep the plan current at all times. A copy of the plan must be kept at a prominent location at the storage facility and at the nearest local office from which the storage facility is administered, and must be made available for employee use and for inspection by the department. The operator of the storage facility shall provide a current copy of the plan to the local fire and police departments. The plan must include, but is not limited to:

A. the identity and telephone numbers of the persons who are to be contacted in the event of a release;

B. for every bulk pesticide stored at the facility, a complete copy of the storage container label required under part 1505.2060, subpart 9, and Minnesota Statutes, section 18B.26;

C. a complete copy of the material safety data sheet for every bulk pesticide stored at the facility;

D. the procedures and equipment to be used in

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controlling and recovering or otherwise responding to a release; and

E. an identification, by location, of every bulk pesticide storage container located at the facility, and the type of bulk pesticide stored in each storage container.

The plan need not include the specific location of each storage container of mini-bulk pesticide, if the plan includes the general location within the facility at which storage containers of mini-bulk pesticide are held.

Subp. 2. **Equipment and supplies.** Bulk pesticide storage facilities must have on the premises equipment needed to mitigate and recover pesticide releases. The equipment must include and is not limited to pumps, recovery containers, personal protective equipment, absorbent materials, and other materials used to control and recover pesticide releases. A checklist of release response equipment and its location must be posted with the release response plan.

Subp. 3. **Training.** The owner or manager of the storage facility shall conduct release response training for all new and existing employees of the facility annually before the beginning of the pesticide use season. New employees must receive training within 30 days of employment. The owner or manager and employees are responsible for following the firm's release response procedures pursuant to the release response plan to minimize contamination of the environment.

1505.2110 INSPECTION AND MAINTENANCE.

Subpart 1. **Records.** The operator of a bulk pesticide storage facility shall inspect and maintain storage containers, appurtenances, loading areas, and secondary containment areas to minimize the risk of a pesticide release. A written record of all inspections and maintenance must 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. A record of all pesticide releases onto the loading area or into the secondary containment area including

date, time, type of pesticide, volume, cause, actions to contain, and management of the release must be kept for at least five years.

Subp. 2. **Schedule.** A bulk pesticide container and its appurtenances must be inspected for leakage at least weekly during the use season. A secondary containment area must be inspected for condition and leakage of the base, seams, and walls at least monthly while bulk pesticide is in storage. Loading area pads must be inspected for leakage at least monthly during the use season.

Inspection records must contain the name of the person making the inspection, the date of each inspection, conditions noted, and maintenance performed.

Maintenance of the bulk pesticide storage facility must be performed as necessary in order to ensure that the integrity of the bulk pesticide containers, secondary containment areas, and loading areas is maintained.

1505.2120 RECORD KEEPING.

The following records must be prepared and kept on file at the bulk pesticide storage facility while bulk pesticides are being stored in a storage container:

A. the beginning and end amounts in each fixed storage container calculated and recorded at the time of each filling;

B. the amount of bulk pesticide delivered, sold, and used; and

C. the names of the persons preparing the information in items A and B and the dates the information was prepared.

The records must be available and must be submitted to the commissioner within 24 hours of a request. Weighing, metering, or direct measurement are acceptable methods for calculating storage amounts.

1505.2130 UNDERGROUND BULK PESTICIDE STORAGE.

Subpart 1. **New underground bulk pesticide storage prohibited.** After July 1, 1989, no new underground bulk

pesticide storage is allowed. This prohibition does not apply to catch basins, containment areas, or sediment traps, used for the temporary collection of pesticides from transfer and loading areas under part 1505.2070, or to underground storage, dip, or other tanks used to contain pesticides used in the wood preservatives industry.

Subp. 2. **Existing and exempted underground bulk pesticide storage.** Underground bulk pesticide storage tanks in use as of July 1, 1989, or those tanks exempted from subpart 1 must conform with all applicable statutes and rules enforced by the Minnesota Pollution Control Agency, and must perform and provide to the commissioner upon request a leak certification test for each underground bulk pesticide storage tank.

1505.2140 ABANDONED CONTAINERS.

Subpart 1. **Abandonment.** Storage containers and other containers used at a storage facility to hold bulk pesticide or pesticide rinsate are considered abandoned containers under this part if they have been out of service for more than six months because of a weakness or leak, or have been out of service for any reason for more than one year.

Subp. 2. **Underground containers.** Abandoned underground tanks in place at previously existing facilities must be thoroughly cleaned and removed from the ground.

Subp. 3. **Aboveground containers.** Abandoned aboveground containers must be thoroughly cleaned. All hatches on the containers must be removed and all valves or connections must be removed.

1505.2150 EXEMPTIONS.

Subpart 1. **Mobile containers.** The secondary containment requirements of part 1505.2080 do not apply to rail cars, nurse tanks, other mobile containers, or mini-bulk containers which are located at the bulk pesticide storage facility for less than ten consecutive days incidental to loading <u>fixed</u> bulk pesticide containers.

Subp. 2. **Alternate technology.** The commissioner ~~may~~ <u>shall</u>

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exempt any person from a requirement under this part if compliance is not technically feasible, but only if the commissioner finds that the alternative measures provide substantially similar protection to the ground and surface water of the state. A person requesting an exemption shall submit to the commissioner in writing a request for an exemption detailing the alternative measures proposed. The commissioner has 45 days to analyze the facts presented and grant the exemption or advise the person of an unsatisfactory review and detail all changes necessary to achieve compliance.

~~EFFECTIVE DATE.--Parts 1505.2010 to 1505.2150 are effective July 1, 1989.~~

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