

**21—44.56(200) Secondary containment for nonliquid fertilizers and soil conditioners.** Nonliquid fertilizer and soil conditioner stored in a totally enclosed building and a soil conditioner meeting the requirements of subrule 44.56(3) are exempt from the requirements of this rule. Unless stored in a totally enclosed building, or soil conditioners meeting the requirements under subrule 44.56(3), all nonliquid fertilizer and soil conditioner materials shall be stored within an area which drains into a secondary containment structure. The secondary containment structure shall have a volume sufficient to retain the equivalent of 12 inches of runoff from the area drained into the containment structure. This minimum storage volume may be provided within the containment structure or in auxiliary storage tanks, and may be constructed of earth, concrete, or a combination of both.

**44.56(1)** Secondary containment structures constructed entirely or partially of earth shall comply with the following requirements:

*a.* The soil surface, including dike, shall be constructed to prevent downward water movement at rates greater than  $1 \times 10^{-6}$  cm/sec., and shall be maintained to prevent downward water movement at rates greater than  $1 \times 10^{-5}$  cm/sec. The method of achieving a satisfactory seal shall be determined by a registered engineer.

*b.* Dike shall be protected against erosion. If the slope is 30 degrees or less, grass can be sufficient protection, provided it does not interfere with the required soil seal. If greater than 30 degrees, other methods of erosion protection shall be used.

*c.* Top width of dike shall be no less than 2½ feet. The slope should be no greater than 45 degrees.

*d.* The diked area shall not have a relief outlet.

*e.* All liquid and other material collected shall be field applied at normal fertilizer application rates or transferred to auxiliary storage tanks.

**44.56(2)** Runoff collection structures constructed of concrete shall comply with the following requirements:

*a.* The base of the structure shall be maintained to prevent downward water movement.

*b.* The diked area shall not have a relief outlet.

*c.* All liquid and other material collected shall be field applied at normal fertilizer application rates or transferred to auxiliary storage tanks.

**44.56(3)** Soil conditioners consisting entirely of minimally manipulated manures are exempt from the requirements of this rule if all of the following apply to the storage of the soil conditioner:

*a.* The soil conditioner is stored in an impermeable container.

*b.* The soil conditioner is stored in the field of application or adjacent fields of application and the amount stored does not exceed the necessary amount of nitrogen, phosphorus, or potassium to achieve optimal crop yields, as determined by average county or proven yields, on the acres in the fields of application. The total potential acres of application stored in any field shall not exceed an amount necessary for application on 160 acres.

*c.* The soil conditioner is stored in the field for a period not to exceed six months.

*d.* The soil conditioner meets all of the storage requirements for bulk dry animal nutrients under rule 21—49.7(200A).

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