**Section 502.615 Nutrient Transport Potential**

a) Field Assessment. An individual field assessment of the potential for nitrogen and phosphorus transport from the field to surface waters must be conducted and the results contained in the nutrient management plan. The following factors must be identified for each field to determine nitrogen and phosphorus transport potential to the waters of the United States.

1) Soil type;

2) Slope;

3) Conservation practices;

4) Soil erodibility or potential for soil erosion;

5) Soil test phosphorus;

6) Tile inlet locations;

7) Distance to surface waters;

8) Proximity to wells;

9) Location of conduits to surface water, including preferential flow paths; and

10) Subsurface drainage tiles.

b) The applicant must use the field assessment information obtained in subsection (a) to determine the appropriate phosphorus-based or nitrogen-based application rate for each assessed field. The determination must comply with subsection (c) or (d) and Sections 502.620, 502.625, 502.630, and 502.635.

c) Nitrogen-based application of livestock waste must comply with the following requirements:

1) livestock waste application must comply with the setback requirements in Section 502.645;

2) available soil phosphorus (median Bray P1 or Mehlich 3 using Recommended Chemical Soil Test Procedures for the North Central Region, incorporated by reference in 35 Ill. Adm. Code 501.200) is equal to or less than 300 pounds per acre;

3) the soil loss calculated using the Revised Universal Soil Loss Equation 2 (RUSLE2) is less than the Erosion Factor T;

BOARD NOTE: Soil loss may be calculated using the Revised Universal Soil Loss Equation 2 (RUSLE2) software program available at http://fargo.nserl.purdue.edu/rusle2\_dataweb/RUSLE2\_Index.htm. Additional information may be obtained from the United States Department of Agriculture, Agricultural Research Service, 1400 Independence Avenue, S.W., Washington DC 20250, (202) 720-3656. Erosion Factor T for Illinois soils is available from the United States Department of Agriculture, Natural Resources Conservation Service, Illinois Office, 2118 W. Park Court, Champaign IL 61821, (217) 353-6600. The published soil surveys for Illinois are available at http://www.nrcs.usda.gov.

4) if conduits on the field are less than 400 feet from surface waters, the setback requirements in Section 502.645(b)(2) do not apply. Instead, the following setbacks apply:

A) Livestock waste application must be conducted no closer than:

i) 150 feet from a tile inlet, agricultural well head, sinkhole, or edge of a ditch that has no vegetative buffer; or

ii) 50 feet from a tile inlet, agricultural well head, sinkhole, or edge of a ditch that has a 50-foot vegetative buffer or 50 feet from the center of a grass waterway;

B) These setbacks do not apply if the CAFO demonstrates to the Agency that a setback or buffer is not necessary because implementing alternative conservation practices (including injection and incorporation) or field-specific conditions will provide pollutant reductions equivalent to or better than the reductions that would be achieved by the 150-foot setback under subsection (c)(4)(A)(i) or the 50-foot setback under subsection (c)(4)(A)(ii);

5) if conduits on the field are more than 400 feet from surface waters, the setback requirements in subsection (c)(4) do not apply;

6) where surface waters are on the assessed field or within 200 feet of the field, the livestock waste applied to the field must be injected or incorporated within 24 hours after the application or equivalent conservation practices must be installed and maintained on the field under USDA-NRCS practice standards; and

7) if nitrogen-based application cannot be conducted under this subsection (c), then phosphorus-based application must be conducted as specified in subsection (d).

d) Phosphorus-based application of livestock waste must comply with the following requirements:

1) livestock waste application must comply with the setback requirements in Section 502.645;

2) the livestock waste application rate must not exceed the annual agronomic nitrogen demand of the next crop grown as provided in Section 502.625(a);

3) if the soil contains greater than 50 pounds of available soil phosphorus per acre (median Bray P1 or Mehlich 3 in accordance with Recommended Chemical Soil Test Procedures for the North Central Region, incorporated by reference in 35 Ill. Adm. Code 501.200), phosphorus-based application rates must maintain or lower the soil test phosphorus during the nutrient management plan period;

4) if the soil contains greater than 300 pounds of available soil phosphorus per acre (median Bray P1 or Mehlich 3 in accordance with Recommended Chemical Soil Test Procedures for the North Central Region, incorporated by reference in 35 Ill. Adm. Code 501.200), the amount of phosphorus applied in the livestock waste must not exceed the amount of phosphorus next year's crop grown and harvested removes; and

5) livestock waste must not be applied to fields with available soil phosphorus (median Bray P1 or Mehlich 3 in accordance with Recommended Chemical Soil Test Procedures for the North Central Region, incorporated by reference in 35 Ill. Adm. Code 501.200) greater than 400 pounds per acre.

(Source: Amended at 48 Ill. Reg. 3196, effective February 15, 2024)