**Section 502.515 Terms of Nutrient Management Plan**

Any permit issued to a CAFO must require compliance with the terms of the CAFO's site-specific nutrient management plan. These terms include:

a) The terms of the nutrient management plan are the information, protocols, best management practices, and other conditions in the nutrient management plan the Agency determines are necessary to meet Sections 502.505 and 502.510.

b) The terms of the nutrient management plan, regarding protocols for land application of livestock waste as required by Subpart F, must include:

1) the fields available for land application;

2) field-specific rates of application properly developed under subsection (d) or (e) to ensure appropriate agricultural utilization of the nutrients in the livestock waste; and

3) any timing limitations identified in the nutrient management plan concerning land application on the fields available for land application.

c) The terms of the nutrient management plan must address rates of application using either the linear approach as described in subsection (d) or the narrative rate approach as described in subsection (e), unless the Agency specifies that only one of these approaches may be used.

d) The linear approach is an approach that expresses application rates as pounds of nitrogen and phosphorus, according to the following specifications:

1) The terms include maximum application rates from livestock waste for each year of permit coverage, for each crop identified in the nutrient management plan, in chemical forms determined to be acceptable to the Agency, in pounds per acre, per year, for each field to be used for land application, and the factors necessary to determine those rates.

2) The factors that are terms must include:

A) the outcome of assessing the field-specific potential for nitrogen and phosphorus transport from each field;

B) the crops to be planted in each field or any other uses of a field such as pasture or fallow fields;

C) the realistic yield goal for each crop or use identified for each field;

D) the nitrogen and phosphorus recommendations, according to Section 502.625, for each crop or use identified for each field;

E) credits for all nitrogen in the field that will be plant available;

F) consideration of multi-year phosphorus application;

G) accounting for all other additions of plant-available nitrogen and phosphorus to the field;

H) the form and source of livestock waste to be land-applied;

I) the timing and method of land application; and

J) the methodology by which the nutrient management plan accounts for the amount of nitrogen and phosphorus in the livestock waste to be applied.

3) CAFOs that use this linear approach must calculate the maximum amount of livestock waste to be land applied at least once each year using the results of the most recent representative livestock waste tests for nitrogen and phosphorus taken within 12 months before the date of land application required by Section 502.635.

e) The narrative rate approach is an approach that expresses application rates as a narrative rate of application that results in the amount, in tons or gallons, of livestock waste to be land applied, according to this subsection (e).

1) The terms include:

A) maximum amounts of nitrogen and phosphorus derived from all sources of nutrients, for each crop identified in the nutrient management plan, in chemical forms determined to be acceptable to the Agency, in pounds per acre, for each field, and the factors necessary to determine those amounts;

B) the outcome of assessing the field-specific potential for nitrogen and phosphorus transport from each field;

C) the crops to be planted in each field or any other uses, such as pasture or fallow fields, including alternative crops identified under subsection (e)(1)(G);

D) the realistic yield goal for each crop or use identified for each field;

E) the nitrogen and phosphorus recommendations according to Section 502.625 for each crop or use identified for each field;

F) the methodology by which the nutrient management plan accounts for the following factors when calculating the amounts of livestock waste to be land applied:

i) results of soil tests conducted using protocols identified in the nutrient management plan, as required by Section 502.510(b)(9);

ii) credits for all nitrogen in the field that will be plant available;

iii) the amount of nitrogen and phosphorus in the livestock waste to be applied;

iv) consideration of multi-year phosphorus application;

v) accounting for all other additions of plant nitrogen and phosphorus to the field;

vi) the form and source of livestock waste;

vii) the timing and method of land application; and

viii) volatilizing nitrogen and mineralizing organic nitrogen.

G) alternative crops identified in the CAFO's nutrient management plan that are not in the planned crop rotation.

i) When a CAFO includes alternative crops in its nutrient management plan, the crops must be listed by field, in addition to the crops identified in the planned crop rotation for that field, and the nutrient management plan must include realisticcrop yield goals and the nitrogen and phosphorus recommendations according to Section 502.625 for each crop.

ii) Maximum amounts of nitrogen and phosphorus from all sources of nutrients and the amounts of livestock waste to be applied must be determined using the methodology described in subsections (e)(1)(A) through (F).

2) For CAFOs using this narrative approach, the following projections must be included in the nutrient management plan submitted to the Agency, but are not terms of the nutrient management plan:

A) the CAFO's planned crop rotations for each field for the period of permit coverage;

B) the projected amount of livestock waste to be applied;

C) projected credits for all nitrogen in the field that will be plant available;

D) consideration of multi-year phosphorus application;

E) accounting for all other additions of plant-available nitrogen and phosphorus to the field;

F) the predicted form, source, and method of applying livestock waste for each crop; and

G) timing of application for each field, insofar as it concerns calculating the rates of application.

3) CAFOs that use this narrative rate approach must calculate maximum amounts of livestock waste to be land applied at least once each year using the methodology required in subsections (e)(1)(A) through (F) before land applying livestock waste and must rely on the following data:

A) a field-specific determination of nitrogen that will be plant available consistent with the methodology required by subsections (e)(1)(A) through (F), and for phosphorus, the results of the most recent soil test conducted using Agency-approved soil testing requirements; and

B) the results of most recent representative livestock waste tests for nitrogen and phosphorus taken within 12 months before the date of land application, to determine the amount of nitrogen and phosphorus in the livestock waste to be applied.

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