**Section 502.620 Protocols to Land Apply Livestock Waste**

a) Livestock wastes must not be applied to the waters of the United States. Livestock waste application must not cause runoff into the waters of the United States during non-precipitation events. Livestock waste application must not occur on land that is saturated at the time of application. Livestock waste must not be applied onto land with ponded water.

b) Discharge of livestock waste to waters of the United States or off-site during dry weather through subsurface drains is prohibited.

c) Livestock waste must not be applied during precipitation when runoff of livestock waste will be produced.

d) Surface land application of livestock waste must not occur within 24 hours preceding a precipitation forecast of 0.5 inches or more in a 24-hour period as measured in liquid form. The CAFO owner or operator must use one of the following two methods for determining whether these conditions exist and must maintain a record of the forecast from the source used.

1) A prediction of a 60 percent or greater chance of 0.5 inches or more of precipitation in a 24-hour period as measured in liquid form, obtained from the National Weather Service's Meteorological Development Laboratory, Statistical Modeling Branch, 1325 East West Highway, Silver Spring MD 20910 for the location nearest to the land application area; or

BOARD NOTE: The prediction in subsection (d)(1) may be obtained from the National Weather Service at https://www.wpc.ncep.noaa.gov/pqpf/conus\_hpc\_pqpf.php

2) A prediction of 0.5 inches or more of precipitation in a 24 hour period as measured in liquid form and identified as higher than Quantitative Precipitation Forecast (QPF) category 3, obtained from the National Weather Service's Meteorological Development Laboratory, Statistical Modeling Branch, 1325 East West Highway, Silver Spring MD 20910 for the land application area location.

BOARD NOTE: The prediction in subsection (d)(2) may be obtained from the National Weather Service at http://www.wpc.ncep.noaa.gov/qpf/qpf2.shtml.

e) Determination of soil loss must be made for each field using Revised Universal Soil Loss Equation 2 (RUSLE2).

BOARD NOTE: Soil loss may be calculated using the 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

f) Surface land application may be used when the land slope is no greater than 5% or when the yearly average soil loss calculated using RUSLE2 is equal to or less than 5 tons per acre per year or Erosion Factor T, whichever is less, regardless of slope. Injection or incorporation within 24 hours must be used when the land slope is greater than 5% and the yearly average soil loss calculated using RUSLE2 is greater than 5 tons per acre per year or Erosion Factor T, whichever is less. Fields with varying or steep slopes must be divided into separate areas for calculating yearly average soil loss using RUSLE2 to comply with this subsection.

BOARD NOTE: Soil loss may be calculated using the RUSLE2 software program available at http://fargo.nserl.purdue.edu/rusle2\_dataweb/RUSLE2\_Index.htm. Additional information on RUSLE2 may be obtained from the United States Department of Agriculture, Agricultural Research Services, 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.

g) Land application of livestock waste is prohibited on slopes greater than 15%.

h) Liquid livestock waste must not be applied to land with less than 36 inches of soil covering fractured bedrock, sand, or gravel. The depth of soil cover may be determined by using NRCS soil surveys, Illinois State Geological Survey well logs, or soil probes.

i) Livestock waste must not be applied to bedrock outcrops.

j) Livestock waste must be applied at no greater than 50 percent of the agronomic nitrogen rate determined under Section 502.625 when there is less than 60 inches of unconsolidated material over bedrock. The depth of unconsolidated material may be determined by using NRCS surveys, Illinois State Geological Survey well logs, or soil probes.

k) Livestock waste must be applied at no greater than 50 percent of the agronomic nitrogen rate determined under Section 502.625 when the minimum soil depth to seasonal high water table is less than or equal to 2 feet. The depth of soil to the seasonal high water table may be determined by using information from NRCS soil surveys, soil probes, and water table levels from Illinois State Geological Survey well log data or well points.

l) Livestock waste must not be applied at rates that exceed the infiltration rates of the soil.

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