**Section 502.630 Protocols to Land Apply Livestock Waste During Winter**

a) Winter Application Prohibition. Surface land application of livestock waste on frozen, ice-covered, or snow-covered ground is prohibited except as specified in subsection (a)(1).

1) Despite the winter application prohibition in subsection (a), surface land application of livestock waste on frozen, ice-covered, or snow-covered ground is allowed if all of the following conditions are met:

A) No practical alternative measures are available to handle the livestock waste within storage facilities or to dispose of the livestock waste at other sites. Examples of practical alternative measures may include the transfer of waste to another waste handling facility or sewage treatment plant, rental or acquisition of a storage tank, reduction of herd size or depopulation, and protection of the facility from direct precipitation and clean stormwater runoff;

B) Liquid livestock waste cannot be injected or incorporated within 24 hours after application due to soil conditions;

C) Before December 1, the owner or operator has taken steps to provide 120 days of available capacity for manure storage areas. Examples of steps that could be taken may include land application of livestock waste, transfer of waste to another party, protection of waste storage structures from direct precipitation and stormwater runoff, and depopulating facilities to reduce the amount of waste generated;

D) The owner or operator has complied with subsection (a)(1)(C) and yet the storage volume available on December 1 of that winter season is less than 120 days of storage;

E) The owner or operator has notified the Agency in writing on December 1 of that winter season that the CAFO has less than 120 days of storage available; and

F) The discharge of livestock waste from the structure to the surface waters is expected to occur due to a shortage in storage capacity.

2) The storage volume calculation in subsection (a)(1)(C) must include runoff and direct precipitation plus the volume of livestock excreta, wash water, and other process wastewater generated and expected to enter the storage structure from December 1 to April 1.  Runoff volume calculations must meet the following requirements:

A) Runoff calculations must be based on the runoff transferred into the storage structure under frozen ground conditions;

B) Direct precipitation that will reduce the available storage volume must be based on normal precipitation for the December 1 to April 1 period for the nearest weather station and, for facilities exposed to precipitation, the 25-year, 24-hour storm event volume or the design storm event volume determined under Subpart H for swine, poultry, and veal large CAFOs that are new sources. Normal precipitation determinations must be based on National Weather Service or State Water Survey Records;

BOARD NOTE: The following sources may be used to determine normal precipitation:

http://www.isws.illinois.edu/atmos/statecli/newnormals/newnormals.htm or https://www.ncei.noaa.gov/products/land-based-station/us-climate-normals

C) The owner or operator must keep a record of the precipitation value used and the source from which the value was obtained; and

D) Calculations must allow for a freeboard of two feet.

3) If winter land application is necessary, it must be conducted under a winter application plan described in subsection (b) and according to the conditions of subsection (c).

b) Winter Application Plan

To conduct surface land application on frozen, ice-covered, or snow-covered ground, this subsection (b) must be met.

1) No land application may occur within ¼ mile of a non-farm residence.

2) No discharge may occur during the land application of livestock waste.

3) Surface land application on frozen ground must not occur within 24 hours preceding a precipitation forecast of 0.25 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.

A) A prediction of a 60 percent or greater chance of 0.25 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 (b)(3)(A) may be obtained from the National Weather Service at https://www.wpc.ncep.noaa.gov/pqpf/conus\_hpc\_pqpf.php.

B) A precipitation prediction of 0.25 inches or more in a 24-hour period as measured in liquid form and identified as higher than QPF category 2 obtained from the National Weather Service 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 (b)(3)(B) may be obtained from the National Weather Service at https://www.wpc.ncep.noaa.gov/qpf/qpf2.shtml.

4) Surface land application of livestock waste on ice-covered or snow-covered land must not occur within 24 hours preceding a precipitation forecast of 0.1 inches or more in a 24-hour period as measured in liquid form. The CAFO owner or operator must use one of the two methods provided below for determining whether or not these conditions exist and must maintain a record of the forecast from the source used.

A) A precipitation prediction of a 60 percent or greater chance of 0.1 inches or more 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 (b)(4)(A) may be obtained from the National Weather Service at https://www.wpc.ncep.noaa.gov/pqpf/conus\_hpc\_pqpf.php.

B) A precipitation prediction of 0.1 inches or more in a 24-hour period as measured in liquid form and identified as higher than QPF category 1 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 (b)(4)(B) may be obtained from the National Weather Service at https://www.wpc.ncep.noaa.gov/qpf/qpf2.shtml.

5) If the land application of livestock waste is on ice-covered or snow-covered land, surface land application must not occur when the predicted high temperature exceeds 32 degrees F on the day of land application or on any of the 7 days following land application as predicted by 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. The owner or operator must maintain a record of the forecast from the source used.

BOARD NOTE: The predicted high temperature in subsection (b)(5) may be obtained from the National Weather Service at https://www.weather.gov.

6) If the surface land application of livestock waste is on ice-covered or snow-covered land, the CAFO owner or operator must visually monitor for runoff from the site. The CAFO owner or operator daily must monitor each ice-covered or snow-covered field where land application has been conducted when the ambient temperature is 32 degrees F or greater following winter land application until all the ice or snow melts from the land application area.

7) If the surface land application of livestock waste is on ice-covered or snow-covered land and a runoff from the land application area occurs, the CAFO owner or operator must report any discharge of livestock waste within 24 hours after the discovery of the discharge as follows:

A) The report must be made to the Agency through the Illinois Emergency Management Agency by calling 1-800-782-7860 or 1-217-782-7860;

B) Within 5 days after this telephone report, the CAFO owner or operator must file a written report with the Agency that includes the name and telephone number of the person filing the report, the discharge location, an estimated quantity of the discharge, the discharge’s time and duration, actions taken in response to the discharge, and observations on the discharge’s condition with regards to turbidity, color, foaming, floatable solids and other deleterious conditions for each day of the runoff event until the ice or snow melts off the site.

c) Availability of Individual Fields for Winter Application

If livestock waste is to be surface applied on frozen ground, ice-covered land, or snow-covered land, the land application may only be conducted on land that meets the following requirements:

1) Adequate erosion and runoff control practices exist, including vegetative fence rows around the site, contour farming, terracing, catchment basins, and buffer areas that intercept surface runoff from the site;

2) A crop stubble, crop residue, or vegetative buffer of 200 feet exists between the land application area and surface waters, waterways, open tile line intake structures, sinkholes, agricultural wellheads, or other conduits to surface water and the vegetative buffer zone is downgradient of the livestock waste application area;

3) Application on land with slopes greater than 5% is prohibited;

4) Application may only occur on sites that have field-specific soil erosion loss calculated using Revised Universal Soil Loss Equation less than Erosion Factor T and have a median Bray P1 or Mehlich 3 soil level of phosphorus equal to or less than 300 pounds per acre using Recommended Chemical Soil Test Procedures for the North Central Region, incorporated by reference in 35 Ill. Adm. Code 501.200;

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.

5) Surface application may only occur if the setbacks equal three times the otherwise applicable setbacks by Sections 502.615 and 502.645 if the slope of the field is between 2 percent and 5 percent. This setback requirement does not include the quarter-mile distance from residences contained in Section 502.645(a); and

6) For fields with slopes of less than 2 percent, the surface application may only occur if the setbacks equal two times the otherwise applicable setbacks required by Sections 502.615 and 502.645.This setback requirement does not include the quarter-mile distance from residences contained in Section 502.645(a).

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