Ohio Administrative Code

Rule 901:10-2-04 Manure storage and treatment facilities.

Effective: January 1, 2026

(A) An application for a permit to install shall include analysis of manure that is sampled and analyzed in accordance with paragraphs (A) to (D) of rule 901:10-2-10 of the Administrative Code.

(B) For the purposes of a permit to install, manure shall be quantified and characterized to allow for proper sizing and design of the proposed manure storage or treatment facility. For an existing facility that submits a permit to install application for a similar type of manure storage or treatment facility with no change in treatment technology to what is currently utilized by the facility, the volume of manure and characterization of manure shall be based on manure production records and manure analysis from an actual sample from the facility. If actual manure production records or manure analysis are not available or are deemed not accurate by the department, or if the permit to install application is for a new facility or treatment technology not in use by the existing facility, then the owner or operator shall use the table appended to this rule or use manure production records and manure characterization records from a similar type facility with a similar type of manure storage or treatment facility or treatment technology. If manure data or analysis is used from a similar type facility to characterize manure, the owner or operator shall submit this alternative manure data along with the identification of the source of the data.

(C) General design and construction criteria for a manure storage or treatment facility.

(1) An appropriate design plan shall be required for a new or expanding manure storage or treatment facility.

(2) A manure storage or treatment facility shall be designed and constructed to handle manure volume, precipitation and surface water runoff in a manner that prevents the discharge of manure to waters of the state.

(D) Calculating storage volume for manure storage or treatment facilities.

(1) The total storage volume of a manure storage or treatment facility shall not be less than the volume calculated as the summation of the following, unless the owner or operator or the director determines that additional storage capacity is required to meet permit conditions.

(a) Manure generated during the storage period required by rule 901:10-2-05 or rule 901:10-2-06 of the Administrative Code;

(b) Average precipitation less evaporation on the surface area of the manure storage or treatment facility during the storage period. Precipitation amount shall be obtained from the national oceanic and atmospheric administration's U.S. climate normals for the 1991 to 2020 climatological period at

(https://www.ncei.noaa.gov/access/us-climate-normals/#dataset=normals-annualseasonal&timeframe=30);

(c) Normal runoff that drains from the concentrated animal feeding facility's drainage area into the manure storage or treatment facility during the storage period. Calculations of runoff from hard surfaces (i.e., concrete, asphalt, roof, etc.) shall not utilize a minimum factor of less than fifty per cent of the average precipitation;

(d) A twenty-five year, twenty-four hour precipitation event based on the surface of the manure storage or treatment facility. Precipitation amount for a twenty-five year, twenty-four hour event shall be obtained from the national oceanic and atmospheric administration's atlas fourteen point precipitation frequency estimates (https://hdsc.nws.noaa.gov/pfds/pfds_map_cont.html);

(e) The runoff from a twenty-five year, twenty-four hour precipitation event that drains from the concentrated animal feeding facility's drainage area into the manure storage or treatment facility. Precipitation amount for a twenty-five year, twenty-four hour event shall be obtained from the national oceanic and atmospheric administration's atlas fourteen point precipitation frequency estimates (https://hdsc.nws.noaa.gov/pfds/pfds_map_cont.html); and

(f) Residual manure after liquids have been removed;

(g) Any clean water added to the manure storage or treatment system; and

(h) Any outside feedstocks, substrates, manure, or other wastes received.

(2) In addition to the requirements in paragraph (D)(1) of this rule, the total storage volume of a manure treatment lagoon shall not be less than the volume calculated using one of the following methods set forth in the appendix to this rule.

(E) Stormwater pollution prevention plans. Each owner or operator of a concentrated animal feeding facility shall prevent pollution of stormwater resulting from an animal feeding facility.

(1) Each owner or operator of a concentrated animal feeding facility shall submit plans to satisfy this rule and do the following:

(a) Maintain separation of uncontaminated stormwater runoff from contaminated water with designs and installations that include, but are not limited to, settling basins, ponds, berms, diversions, and gutter systems.

(b) Grade the area around the livestock buildings and the manure storage or treatment facility to provide positive drainage of all clean stormwater away from the manure storage or treatment facility.

(c) Divert stormwater runoff and roof water away from the manure storage or treatment facility or other structures in the production area.

(d) Use spill prevention and best management practices to ensure that stormwater discharges from the following areas comply with Ohio water quality standards: immediate access roads and rail lines used or traveled by carriers; or raw materials, products, waste materials, or by-products used or created; refuse sites; sites used for storage and maintenance of material handling equipment; sites used for handling material other than manure and shipping and receiving areas.

(e) Install systems that are designed to capture and treat contaminated runoff and prohibit discharge of contaminated stormwater. The owner or operator may use the following standards to develop such systems:

(i) The "Ohio Natural Resource Conservation Service, Conservation Practice Standards Section IV, Field Office Technical Guide" (efotg.sc.egov.usda.gov/#/state/OH/documents) which includes the following standards :

(a) "Pond, No 378," February 2024;

(b) "Constructed Wetland Conservation Practice Standard, No. 656," February 2024, but provided there shall be no discharge;

(c) "Heavy Use Area Protection Practice, No. 561," February 2024;

(d) "Composting Facility, No. 317," February 2024;

(e) "Critical Area Planting, No. 342," October 2017;

(f) "Dike or Levee, No. 356," February 2024;

(g) "Diversion, No. 362," February 2024;

(h) "Grade Stabilization Structure, No. 410," July 2023;

(i) "Roof Runoff Structure, No. 558," February 2024;

(j) "Sediment Basin, No. 350," November 2017.

(ii) The "Ohio Livestock Manure And Wastewater Management Guide, Bulletin 604, The Ohio State University Extension, January 2006."

(f) Construct coverings over any structures in the production area where manure may be exposed to direct precipitation; or

(g) Install vegetative cover and protect stream channels and areas adjacent to such channels from a concentrated animal feeding facility.

(2) The owner or operator may submit plans that implement alternative practices to the director for approval provided that any alternative practices must be demonstrated to be equivalent to the practices listed in paragraph (E)(1) of this rule unless the owner or operator or the director determine that additional total storage capacity is required to meet permit conditions. All of the practices listed are subject to the design standards for precipitation events in paragraphs (C) and (D) of this rule.

(F) Manure transfer piping.

(1) Pipes shall be designed to resist corrosion, plugging, and freezing.

(2) The embankment of a manure storage pond or treatment lagoon may not contain pipes that extend through the embankment unless the pipes are properly designed and constructed with anti-seep devices.

(3) All piping components for forced manure transfer or flushing systems shall be watertight as designated by an appropriate ASTM International standard ("ASTM"), American Water Works Association standard ("AWWA"), American National Standards Institute standard ("ANSI"), or any other nationally recognized standard that is in effect at the time of construction. Piping systems shall be installed and pressure or leak tested in accordance with AWWA C600, C605, or any other nationally recognized standard that is in effect at the time of construction.