

ANIMAL FEEDING OPERATIONS - DOCUMENTATION AND RECORDKEEPING REQUIREMENTS

(For assistance, please contact EHS at (402) 472-4925, or visit our web site at <http://ehs.unl.edu/>)

Purpose

The purpose of this Safe Operating Procedure (SOP) is to describe the documentation and recordkeeping requirements for animal feeding operations (AFOs), as prescribed in Nebraska Title 130, *Livestock Waste Control Regulations*. AFOs are generally split into two groups; large concentrated animal feeding operations (Large CAFOs) and all other AFOs.

CAFO Recordkeeping Requirements

The Nebraska Department of Environmental Quality (NDEQ) requires large CAFOs to submit an annual report (based on the calendar year) by March 1. Operators must maintain a copy of the report and records that support the content of the annual report. The annual report must include:

1. The maximum number and type of animals at the operation at any one time. This is not the number listed on the permit. It is the actual maximum number of livestock that were present at the operation.
2. Estimated amount of total manure, litter, and process wastewater generated by the operation in the previous calendar year reported in tons or gallons, as appropriate.
3. Estimated amount of total manure, litter, and process wastewater transferred to other persons from the operation in the previous calendar year reported in tons or gallons, as appropriate.
4. Total number of acres for land application covered by the nutrient management plan.
5. Total number of acres under control of the operation that were used for land application of manure, litter, and process wastewater in the previous calendar year.
6. Summary of all manure, litter, and process wastewater discharges from the production area that occurred in the previous calendar year, including the date, time over which the discharge occurred, and the approximate volume discharged with supporting figures. If any occurred there must also be records of 'Notification of Discharge of Livestock Waste' available for inspection.
7. The name, address, and telephone number of the person who is primarily responsible for land application practices at the operation, whether that person is an authorized representative or employee of the operation, and the date that land application training was last completed.

8. A statement indicating whether the current version of the operation's nutrient management plan was developed and approved by a certified nutrient management planner. However, as of the date of this SOP, Nebraska does not have a certification program so this requirement does not apply.
9. The actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, litter, and process wastewater, the results of calculations conducted in accordance with a linear or narrative rate of application as described in Chapter 14, Section 003 of Title 130, and the amount of manure, litter, and process wastewater applied to each field during the previous 12 months; and for any CAFO that implements a nutrient management plan that addresses rates of application in accordance with narrative rate approach, the results of any soil testing for nitrogen and phosphorus taken during the preceding 12 months, the data used in calculations conducted in accordance with the nutrient management plan, and the amount of any supplemental fertilizer applied during the previous 12 months.

Records that must be maintained on file to support the information in the annual report must include:

1. Inspection records which include:
 - a. Daily inspections of the production area of water lines, including drinking water or cooling water lines. The intent of this inspection is to ensure that the lines are not leaking or broken. Leaking/broken lines can rapidly fill waste impoundments forcing them to be pumped when the ground is frozen or other inopportune times.
 - b. Daily monitoring and recording of any precipitation events.
 - c. Weekly inspections of:
 - i. Storm water diversion devices, runoff diversion structures, and devices channeling contaminated storm water to the livestock waste control facilities.
 - ii. Manure, litter, and process wastewater impoundments. The inspection record shall note the level in liquid impoundments as indicated by the depth marker.
The purpose of both inspections is to look for damage to the structures from erosion, vermin, etc.
 - d. Annual inspections to determine the sludge and sediment accumulation level in liquid impoundments.
 - e. If an irrigation distribution system is used to apply wastes, inspection prior to its operation is required. The water source protection equipment identified in Title 130, Chapter 10 must be inspected to ensure that the system and equipment operate as intended. Typically, the equipment consists of an irrigation pipeline check valve, a vacuum relief valve, an inspection port, and a low pressure drain. The system must be monitored while in use to insure the system operates as intended. The regulations do not mention a required frequency. Either inspect it daily when in use or in accordance with the frequency given in an approved application.

2. Records to document any actions taken to correct deficiencies found as a result of required inspections. For any deficiencies not corrected within 30 days, the record shall include an explanation of the factors preventing immediate correction.
3. Records of mortalities management, chemical management, and related practices used by the operation. The management practice(s) used are required; not numbers of carcasses generated or containers of chemicals disposed. Mortalities can be managed by rendering, burial on site, composting (carcasses of 660 pounds or less) or incineration (if the incinerator is covered by a valid and current air permit pursuant to Nebraska Title 129, *Nebraska Air Quality Regulations*). Chemicals can be disposed through EHS. Carcasses and chemicals can not be disposed in LWCFs.
4. A copy of the completed NPDES permit application. The application contains the following documents:
 - a. Copies of Form A – Request for Inspection, Form B – Application, and Form C – Applicant disclosure. These three documents are not specifically listed in Title 130 Chapter 12. However, NDEQ administrative procedures require them as part of the application process and may ask to see them during an inspection.
 - b. Records documenting design of manure or litter storage structures, total design capacity for liquids and solids, sampling and test results related to the design and construction of the facility, and approximate number of days of storage capacity based on design and use calculations.
 - c. The nutrient management plan. If all of the documents and records listed in this SOP are up to date and available, then the facility has a nutrient management plan.
 - d. Maps of land application areas (fields) and documentation of expected crop yields.
 - e. Records of date(s) that manure, litter, or process wastewater was applied to each field.
 - f. Records of weather conditions at the time of application and for 24 hours prior to and following application.
 - g. Results from manure, litter, process wastewater, irrigation water, and soil sampling and testing. Frequency of analysis is mandated in Nebraska Title 130, Chapter 7, Section 005. Soil at each application site must be analyzed for nitrogen and phosphorus prior to application. Soil must be analyzed annually thereafter for nitrogen and once every five years for phosphorus when used for application.
 - h. Explanation of the basis for determining manure, litter, and process wastewater application rates.
 - i. Results of the most recent phosphorus risk assessment for each field or field segment including the legal description, date assessed, name of the person who completed the assessment, and the level of risk assessed. The risk assessment must be conducted prior to the first application and then at least once every five years.

- j. Calculations that show the total nitrogen and phosphorus to be applied to each field.
 - k. Total amount of nitrogen and phosphorus actually applied to each field, including documentation.
 - l. The method used to apply the manure, litter, or process wastewater.
 - m. For manure, litter, or process wastewater transferred to other persons the nutrient analysis results and the date, recipient name and address, and approximate amount transferred.
 - n. Records of inspections of equipment used to apply manure, litter, or process wastewater.
5. Groundwater monitoring. These records are only required if NDEQ determines that groundwater monitoring is necessary. If so, the records consist of an approved groundwater monitoring plan, drill logs, and sampling records showing depth to groundwater, purging, etc., and sampling results.

AFO Recordkeeping Requirements

An animal feeding operation that has a livestock waste control facility (LWCF), but is not a concentrated animal feeding operation must have records of inspections of irrigation distribution systems used to apply wastes. The water source protection equipment identified in Title 130 Chapter 10 must be inspected to ensure that the system and equipment operate as intended. Typically, the equipment consists of an irrigation pipeline check valve, a vacuum relief valve, an inspection port and a low-pressure drain. The system must be monitored while in use to insure the system operates as intended. The regulations do not mention a required frequency. Inspect it daily when in use or in accordance with the frequency given in an approved application.

One note of caution, in a facility where structures are necessary, NDEQ may require an application nearly identical to that for NPDES permitted facilities. Commitments made in the application are binding.

Records Retention

For both Large CAFOs, all records must be kept for a minimum of 5 years.