

Recordkeeping & Inspections for Animal Feeding Operations

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Agriculture is a complicated and scientific business; making observations and keeping records allow producers to make the best management decisions. For permitted animal feeding operations (AFOs), there are recordkeeping requirements to demonstrate compliance with federal and state regulations. This MontGuide will explain requirements faced by such AFOs, and make recommendations for all animal feeders.



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THOUGH RECORDKEEPING AND INSPECTIONS

are inextricably linked through the General (GP) or Individual (IP) permits and Nutrient Management Plan (NMP), recordkeeping is not just about regulations. Good records allow for making the most informed management decisions and can be used to demonstrate proper management in the event an accusation of water pollution is made against a producer. In large part, only records can document to an inspector that the operation is following its NMP and permit. Physical evidence of compliance or violations may only play a small part in many cases.

The NMP describes how water is protected through the proper collection, handling, storage and use or export of manure nutrient resources. However, it is only a plan and describes many issues in general terms; detailed records allow the producer to manage very specifically and document that the intent of the NMP has been followed. Records are also an opportunity to amend the NMP with small changes that could be the result of unseasonable weather and other unexpected influences. When all is said and done, an operation with well-organized complete records and no physical evidence of discharge should pass an inspection with flying colors.

Required Records

Confined Animal Feeding Operations (CAFOs) are required to obtain the Montana Pollutant Discharge Elimination System (MPDES) Permit. This is actually a federally required permit administered by the state, on behalf of the U.S. Environmental Protection Agency (EPA). Recordkeeping requirements for CAFOs in Montana meet the federal standard which can be viewed in the EPA brochure titled *What Are the Federal Recordkeeping and Reporting Requirements?* (www.epa.gov/npdes/pubs/cafo_brochure_record.pdf). Recordkeeping

requirements for CAFOs in Montana are very clearly spelled out in the Department of Environmental Quality's (DEQ) Circular 9 (pages 31-32), and in the 2008 General Permit MTG010000, referred to as GP in this document, (MT200814AG) in Sections III and IV (pages 11-21).

DEQ Circular 9 states, "Producers shall maintain records on-site for a period of at least 5 years and must be made available upon request. At a minimum, these records include:

- a copy of a site-specific Nutrient Management Plan (NMP), including current design specifications of manure and litter storage structures (GP pages 20-21);
- the results of any manure, litter and process waste water sampling and analysis;
- the results of any soil sampling and analysis; and
- records that document implementation of the NMP."



In addition, any manure, litter or process wastewater transferred off site must be documented and included in the records of the operation (GP page 13). This record must include:

- date of transfer, recipient name and address;
- approximate amount of material transferred; and
- verification that the CAFO [management or owner] has provided the recipient of such materials with a copy of the most recent analysis.

Montana State University (MSU) Extension publication EB0184, *Using Manure as Fertilizer* (<http://msuextension.org/publications/AgandNaturalResources/EB0184.pdf>), is intended for distribution by CAFO owners/managers to recipients of their manure products (GP page 13, Part B). It includes information on using manure as fertilizer and protecting water quality; it also provides a blank space in which the operator can fill out the results of recent manure analyses, thereby complying with this rule.

Previously in EB0184, there was a general reference to “records that support implementation of the NMP.” This reference includes (from GP Part II section C, page 13):

- weekly inspections of storm water diversions around production areas and manure storage structures;
- daily inspections of water lines, including drinking water or cooling water lines;
- weekly records of depth marker reading for any open liquid manure storage structures;
- records of mortality management practices and
- records of any overflows or spills including date, time and estimated volume of spill.

Regarding land application areas and use of manure, litter and process waste water resources, the following records are required (from the GP, Page 14):

- realistic crop yields;
- dates of application;
- weather conditions 24 hours before and after manure resource application;
- manure analyses and sampling method;
- soil analyses and method;
- total material applied, with nitrogen and phosphorus specifically documented
- date, location (field), method and how application rate was determined/calculated; and
- date and method of land application equipment calibration (recommended annually).

MSU Extension can offer assistance in developing recordkeeping systems that fulfill regulatory requirements and are easy for the producer to manage. Samples of recordkeeping forms are available online at www.msuextension.org/AFOstewardship.

Discharge Notification and Reporting

Another key area of reporting relates to discharge from the production area. If there is a discharge of pollutants from the facility, the permit holder is required to orally inform the Water Protection Bureau at 406-444-3080 within 24 hours of the discharge. The permit holder is then required to submit a written report within 5 days, which must include the following:

- a description of the discharge, its cause and period (including exact time and dates) and its path to state waters, along with an estimate of its volume
- a description of the actions to be taken to prevent re-occurrence
- an analysis of any overflow or pollution discharge must be taken, to measure pH, total Nitrogen, BOD5 (5 day Biochemical Oxygen Demand), TSS (total suspended solids), and Total Ammonia Nitrogen (NH₃-N plus NH₄-N).

The procedures of part 136 Title 40CFR are to be used by the lab performing the analysis. If weather conditions are too dangerous to collect a sample at the time of discharge, the waste control structure or area from which the discharge occurred should be sampled and analyzed after the danger has passed. At the end of the year, a DMR (Discharge Monitoring Report) form available online or from the DEQ (www.deq.mt.gov/wqinfo/mpdes/cafo.asp) should be filled out and submitted, even if no discharge occurred.

Annual Report

The records described in the previous paragraphs would all be reviewed during an inspection. However, many of them will be summarized and reported to DEQ or EPA on an annual basis (CAFO Reports). The same EPA brochure previously mentioned explains these requirements. Montana specific requirements are described on page 30 of DEQ Circular 9 and on page 15 of the General Permit MTG010000. They include:

- animal inventory;
- annual manure (manure, litter, process wastewater) production;
- annual manure export;
- acres of land applied to and acres of land included in the NMP;

- documentation of any discharges; and
- presence of a valid NMP for the operation.

Annual report form AR2 is available from DEQ at www.deq.mt.gov/wqinfo/mpdes/cafo.asp; it must be filed by Jan 28th of the year following the annual review (for 2008, the document must be filed by Jan. 28, 2009).

Additional Recordkeeping Benefits

Records have many other benefits beyond simply complying with the permit and validating the NMP. Records can assist in making important business decisions that impact the bottom line. New levels of efficiency can be attained by examining such records as yields, soil tests and manure and fertilizer usage. Finally, records offer a reduction in liability for producers. In the event of an accusation of environmental mismanagement, records help defend practices and document responsibility.

Compliance Inspections

Historically inspections have primarily been complaint driven. However, under CAFO regulations, all MPDES operations should be inspected by a regulatory agency at a routine interval (typically every two years); smaller animal feeding operations (AFOs) may be included in a routine inspection schedule as well. Regulators are primarily looking for compliance with the permit and associated nutrient management plan, especially proof that discharges have not occurred and that required management practices are documented.

During an inspection, operators should have all relevant paperwork in order and available, including: permit, NMP, records and other supporting documents. The operator, planner or consultant should be able to explain any components of the NMP. The EPA and DEQ are largely concerned with the 9 minimum practices for a NMP which will:

1. ensure adequate (waste) storage;
2. ensure proper management of mortalities;
3. divert clean water from production areas;
4. prevent direct animal contact (with waters of MT/ US);
5. ensure proper chemical handling (preventing contamination of manure resources);
6. include conservation practices to reduce nutrient loss;
7. include protocols for manure and soil testing;
8. include protocols for land application of manure and wastewater; and
9. include recordkeeping

Inspection Preparation

It is very helpful for a producer to conduct or initiate an educational or non-regulatory mock-inspection. This can be done with the confidential help of a third party. MSU Extension can provide confidential educational mock inspections. Additionally EPA has published a fact sheet titled *What to Expect when EPA Inspects Your Livestock Operation* (<http://www.epa.gov/agriculture/factsheets/epa-305-f-03-009.pdf>).

Other tools are available, such as the nationally adapted Farm*A*Syst self-assessment modules (www.wisc.edu/farmasyst/). These may not specifically address a permitted operation, but they help address environmental risk and liability based on practices. Conducting modules with farm/ranch staff or your county agent may give insight into areas that need improvement prior to a visit from regulators.

Participating in a USDA-Natural Resources Conservation Service program may also offer an opportunity for a general assessment. Once again, this may be helpful in identifying critical areas, though likely will not directly address regulations. If a consultant is employed by the operation, that person may also assist in assessing the operation prior to a regulatory inspection.

Inspection Day Rights

Producers and inspectors both have rights on inspection day. It is important to understand that inspectors have a job to do and they represent all citizens from the standpoint that we all need clean water for our communities, households, businesses, and farms or ranches. For routine inspections, most agencies will schedule an inspection and inspectors should keep to their schedule. Farmers and ranchers are extremely busy and keep hours longer than most other businesses. Producers should be ready for the inspection at the appointed time when the inspector arrives; it is still a producer's right to ask the inspector to briefly wait if he or she needs to wrap up a chore. In the case of a surprise inspection, which may be occurring because of a pollution report or problem in the watershed, normal preparations may not have taken place. Producers should try to be ready as soon as possible and accommodate the inspector.

Biosecurity is a very important issue and producers have the right to insist on the protocols established for their operation. This may include clean boots and coveralls, denied access to interiors of confinement buildings, and use of farm and ranch vehicles only for driving around the operation. Producers should greet the inspector professionally and may ask to see credentials or identification; this is also the time to explain biosecurity rules for the operation.

The producer should also convey that they take the process seriously and request to have a copy of the report left onsite or sent as soon as possible. Producers should also take their own notes during the visit. A well-run operation should not have problems with the inspection process. Minor issues are often easily corrected, but may require a follow-up inspection. Keep in mind that giving explanations during an inspection is fair, but just as in dealing with a police officer on the road side, some issues are better answered with a formal follow-up outside of the actual inspection. Over time producers can develop productive and cooperative relationships with regulatory agencies and their inspectors through participation in the inspection process.

Resources

- MSU Livestock Environment Home Page,
www.msuextension.org/AFOstewardship
- MT DEQ CAFOs Page,
<http://www.deq.mt.gov/wqinfo/mpdes/cafo.asp>
- eXtension, Manure Management,
<http://www.extension.org/animal+manure+management>
- U.S. EPA Ag Center (animals),
<http://www.epa.gov/agriculture/animals.html>

Dedicated to Charles Fulhage, University of Missouri Extension, an excellent agricultural engineer and advocate of environmentally sustainable and profitable agricultural production.



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