



STATE OF MISSOURI Jeremiah W. (Jay) Nixon, Governor • Joseph P. Bindbeutel, Acting Director
DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

February 20, 2009

RE: Upcoming Changes to Concentrated Animal Feeding Operations, or CAFO and Commercial Animal Manure Land Application.

Dear Stakeholders and Permit Holders:

On January 7, 2009, the Missouri Clean Water Commission gave final approval to adopt changes to the Concentrated Animal Feeding Operations (CAFO) permit requirements. The state regulations will require permitted CAFOs to assess the potential for and limit the nutrient loss through storm water run off from land where manure from their CAFO operation is spread. The new regulations reflect the Missouri Department of Natural Resources (department) commitment to enhanced water quality protection while ensuring the most efficient use of nutrients.

The newly adopted federal regulations require the department to develop a Nutrient Management Technical Standard to assess the potential for nutrient runoff from land where animal manure is spread. The nutrient standard will also provide guidelines to be followed in developing nutrient application rates that will limit the nutrient loss from storm water runoff.

Importantly, as of February 28, 2009 all new construction permit applications for CAFOs in Missouri will be required to comply with the Nutrient Management Technical Standard. The existing CAFO general operating permit expires February 23, 2011. CAFO owners and operators with existing general operating permits will be required to be in compliance with the new nutrient standard requirements at that time. If an existing CAFO owner or operator seeks an expansion that requires a new construction permit prior to the expiration of the existing operating permit, they must meet the new requirements at the time their construction permit is issued.

CAFOs with site specific permits will also be required to be in compliance at the renewal of their operating permit or at the issuance of a construction permit for expansion of their operation prior to the expiration of their operating permit.

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The department is also working to develop spreading requirements for commercial manure applicators to follow when using animal manure from CAFOs. The requirements will ensure those spreading follow best management practices when land applying the nutrients on agricultural land. The department will take into consideration a variety of best management practices and other requirements when developing the new requirements to ensure it will be protective of water quality.

Enclosed is a fact sheet pertaining to the Nutrient Management Technical Standard. Additional information regarding the nutrient standard and newly adopted regulations can be obtained by calling 800-361-4827 or is available on the department's Web site at www.dnr.mo.gov/env/wpp/cafo. Please feel free to contact Mr. Darrick Steen if you have any questions regarding the new regulations and requirements. Mr. Steen is available at 800-361-4827 or by e-mail to darrick.steen@dnr.mo.gov.

Sincerely,

DIVISION OF ENVIRONMENTAL QUALITY



Earl W. Pabst, Acting Director
Water Protection Program

EWP:rms

Enclosure

c: Clean Water Commission

Concentrated Animal Feeding Operation Nutrient Management Technical Standard

Summary Outline:

1. Soil and manure testing and fertilizer recommendation protocols.
 - **Soil Sampling Protocols** - Includes soil sampling protocols to determine soil test phosphorus, cation exchange capacity and soil organic matter.
 - **Crop Fertilizer Rates** - Includes protocols to develop fertilizer recommendations for crops.
 - **Sampling Frequency and Methods** - Includes protocols describing how and when sources of manure will be sampled and how manure testing results will be used to estimate nutrient concentration in manure.
2. Protocols to develop manure application rates on land application areas.
 - **Field-specific Phosphorus Loss Assessment** - Procedures to complete a field-specific phosphorus loss assessment (soil test Phosphorus Rating and Phosphorus-Index) which will dictate manure application rates. This will determine the limiting nutrient on a given application field, i.e. will it be Nitrogen or Phosphorus-based management.
 - **Nitrogen Rates** – Procedures to develop Nitrogen application rates. Nitrogen applied from all sources should not exceed the recommended nitrogen application rate for non-legume crops and the nitrogen removal capacity of legume crops by more than 10 pounds per acre or 10 percent, whichever is greater.
 - **Phosphorus Rates** – When Phosphorus based management is required, the Phosphorus removal capacity (annual planned removal) of the crop cannot be exceeded (except as provided below) in manure applications by more than 10 pounds per acre or 10 percent.
 - **Multi Year Phosphorus Rates** - When phosphorus-based management is necessary, manure application rates can exceed the annual planned phosphorus removal capacity of the crop so long as the application rate does not exceed the recommended nitrogen application rate during the year of application and the amount of phosphorus banked in the soil for future years does not exceed more than four years of planned crop removal.
 - **No Manure Application** - No manure will be allowed on fields when the Phosphorus-index rating for the field is very high or when the soil test phosphorus rating is very high and the field has not been assessed using the Phosphorus-index.
 - **Land Application Best Management Practices** - Includes restrictions and conditions on the timing, soil conditions, and placement of manure applications on fields.
3. Annual nutrient management monitoring and record keeping requirements.
 - **Manure Storage Operational Monitoring** - Records for each manure storage structure.
 - **Manure Nutrient Monitoring** - For each unique source of manure.
 - **Field Soil Test Monitoring** - For each individual field in the land application area that receives manure.
 - **Land Application Operational Monitoring** - For each individual field in the land application area that receives manure.