

**Missouri Department of Natural Resources**  
**Water Protection Forum**  
**Rulemaking Summary: New Rule, 10 CSR 20-8.300 Manure Storage Design Regulations**  
**June 9, 2011**

**What is the purpose of this rulemaking?**

The Department wants to ensure consistent water quality protection from Concentrated Animal Feeding Operations (CAFOs) by setting forth specific design criteria for the construction of manure management systems. The proposed rule will better protect both surface and groundwater by setting forth comprehensive, technical design requirements.

In addition, spelling out the requirements for CAFO construction permit applications in regulation will provide consultants and the Missouri Department of Natural Resources' (Department) review engineers clear and consistent standards, thereby making the submittal and review of construction permit applications more efficient.

**Who was involved in developing the rulemaking?**

Staff has worked closely with representatives of the USDA's NRCS and the University of Missouri's Commercial Agriculture Program in developing the draft rule. More specifically: Joe Zulovich, P.E., Ph.D., University Extension, Teng Lim, P.E., Ph.D., University Extension and Troy Chockley, P.E., USDA's NRCS were the main contributors.

The Department has held two stakeholders meetings, on September 28 and October 26, 2010. The Regulatory Impact Report was put on public notice for two months in early 2011. We anticipate putting the draft rule on public notice for two months, starting August 15, 2011.

**What does the rule require?**

This rule provides technical requirements for CAFO construction permit applications. Setting requirements specific to CAFOs helps the applicant submit a complete construction application for the Department's review. These requirements ultimately reduce the time, cost and effort of the applicant and the Department, during the construction permit application review process.

Many of the requirements of this new rule are taken from existing rules and policies formalized into a regulation specific to CAFOs. There are also a few new requirements. One is that confinement buildings and manure management systems will need to be sited above or otherwise protected from the 100-year floodplain. This is a change from the current requirement that they be above the 25-year flood level.

In addition, the regulation will raise the requirement for manure storage systems that are open to rainfall or stormwater runoff. Rather than meet the new requirements, CAFO owners may opt to build a covered structure instead, resulting in fewer proposed uncovered storage structures. This is a benefit, as structures exposed to storms present a higher risk to the environment than covered structures.

Furthermore, new poultry buildings will have to do some soils exploration to better verify the suitability of their location. Installed land application systems, including underground pipelines, will have specific requirements as well to help ensure proper functionality and water protection.

**Who is affected?**

The Department receives between 25 and 50 CAFO construction permit applications every year, including new CAFOs, expanding CAFOs and modifications. All of these applicants, whether required to get a permit or seeking a permit voluntarily, will be at least minimally affected.

**How much will it cost?**

Based on the applications the Department received from 2006-2010, we anticipate the following costs to the CAFOs each year:

- Four new or expanding grazing dairies, spending an extra \$4,600 each to build a larger earthen manure storage basin.
- Ten poultry operations spending an extra \$250 as part of the expense of soils investigations.
- One operation every three years building a levee to protect an expanding operation from the 100-year flood. The levee is estimated to cost \$2,400.

**What benefit is expected?**

By building these structures to a higher standard they will likely last longer and have less chance of a malfunction or, in the case of a lagoon, an overflow. That will reduce potential future replacement or liability costs which will be of financial benefit to the CAFO owners. Engineering consultants and Department staff will benefit from having clear guidance as to what the construction permit entails. In addition, everyone benefits from a cleaner environment.

**Do you want more information?**

Contact Barbara Li at 573-751-1299 or [Barbara.Li@dnr.mo.gov](mailto:Barbara.Li@dnr.mo.gov) to get a current copy of the proposed regulation or other information.