

Introduction to Proposed Manure Storage Design Regulations

10 CSR 20-8.300



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WHAT?

- Specific design criteria for the construction of manure management systems

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WHY?

1. To ensure consistent water quality protection from CAFOs.
2. To ensure consistency and efficiency in the application submittal and review process.

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WHO (Which Operations) WILL BE AFFECTED?

- All Animal Feeding Operations which need or desire permit coverage.
- These regulations shall be used when evaluating all new AFOs, and
- New or expanded components of existing AFOs.

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WHO WAS INVOLVED IN THE DEVELOPMENT OF THIS RULE?

- Joe Zulovich, Ph.D., University Extension
- Teng Lim, Ph.D., University Extension
- Troy Chockley, P.E., USDA's Natural Resources Conservation Service

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WHY NOW?

- In part, due to EPA's changes to the CAFO ELG's.
- This proposal goes well beyond the changes initiated by EPA.
- It is efficient to address all CAFO design criteria at one time.
- This regulation will work hand in hand with the 6.300, Phase II regulations.

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WHAT ARE THE NEXT STEPS IN THE PROCESS?

1. Provide input on the regulations before our next meeting on Oct. 26.
2. The Regulatory Impact Report will be public noticed in December.
3. After other necessary procedures, the rule should be put on official public notice in June.
4. If this schedule holds, the rule will become effective in February 2012.

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WHAT HAS CHANGED FROM CURRENT POLICY OR REGULATION?

- Much of the regulation is existing rules and policies formalized into a regulation specific to CAFOs.
- These are currently found in:
 - 10 CSR 20-8.020, Design of Small Sewage Works
 - Manual 121, 1989

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ADMINISTRATIVE

- Clear guidelines for application submittal
- Divided into two sections:
 - Engineering Documents
 - Other Documents

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PROTECTION FROM FLOODING

- Change from allowing operations only above the 25-year flood level to requiring operations be protected from the 100-year flood.

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SEPARATION DISTANCES

- The well separation rules will apply to the building of manure management systems.
- Distances to streams, property lines, etc. will be clearly defined.

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HIGHER MINIMUM DAYS OF STORAGE

- 180 days for dry storage unless it will be used for bedding or sold
- 180 days for liquid manure storages
- Operations proposing uncovered tanks/pits or storage basins, *with less than 365 days of storage*, will be evaluated for the ability to actively manage their systems.

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PROPOSED EVALUATION

- Does the operation have at least 50% ownership of the land application equipment?
- Does the proposed operation own at least 50% of needed land application area?
- Is 50% of the needed annual land application area in permanent, perennial vegetation?
- Does the operation have the equipment and labor needed to quickly pump out the basin by a significant amount?

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PROPOSED EVALUATION (CONT.)

New source, uncovered, class I, swine, veal and poultry storages will have additional evaluation requirements.

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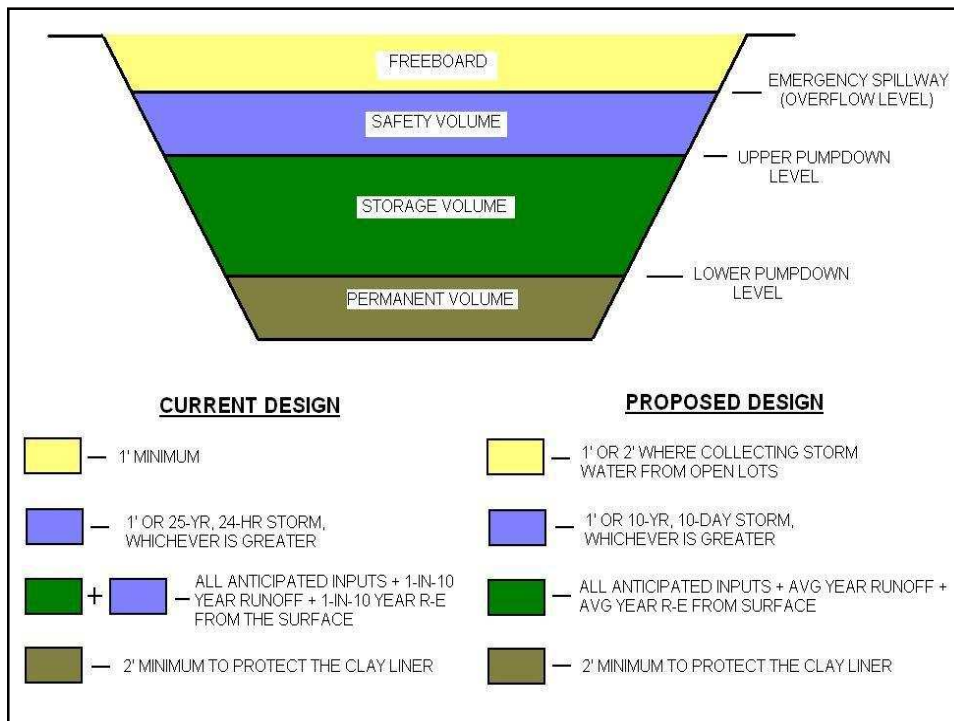
WHICH OPERATIONS WILL BE AFFECTED?



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SIMPLIFIED LAGOON DESIGN

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LAGOON DESIGN (CONT.)

- 365 days of storage for an anaerobic lagoon
- Clear requirements for soil testing
- Minimum separation distance from groundwater

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SLUDGE ACCUMULATION

- Sludge accumulation shall be maintained to not reduce the approved storage volume.

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Tanks and Pits

- Specific design guidelines for tanks and pits, including a separation from the high water table.

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CHANGES FOR POULTRY BUILDINGS

- Poultry operations will have to do some soils exploration to better verify the suitability of their proposed location.
- This would also apply to proposed feedlots, bedded pack barns, composting pads, etc.
- This would not apply to covered stack sheds.

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ALSO AFFECTING POULTRY

- Temporary stockpiling in the production area will not be allowed.
- It will be allowed in the land application areas, provided the design guidelines are met.

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PIPELINES, PUMPS STATIONS, LAND APPLICATION SYSTEMS

- Comments?

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GROUNDWATER MONITORING

- We don't anticipate this being required for many operations.

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MORTALITY MANAGEMENT

- No more routine burial for Class I operations.
- Prior Department approval for mass mortality burials.

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RESULT

- Our hope is that these systems will last longer, have less chance of malfunction and less chance of an overflow for the benefit of:
- Missouri ground and surface waters
- CAFO owners and operators
- The Department
- The Agricultural Industry

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Please speak up now, OR

- Call me, 573-751-1299,
- E-mail me, Barbara.Li@dnr.mo.gov
- OR write: P.O. Box 176,
Jefferson City, MO 65102
- Sooner is better than later.

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