simplifying **Compliance**

Anaerobic Digestion: Regulatory Drivers

environmental compliance assistance program

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Water Quality

- Ag Water Quality Act
 - Division of Conservation
 - The goal of the act is to protect surface and groundwater resources from pollution as a result of agriculture and silviculture (forestry) activities.
 - Nutrient Management Plans
- Kentucky No Discharge Operational Permits issued by Ky Division of Water
 - http://www.lrc.ky.gov/kar/401/005/005.htm
- Increasing attention (EPA) to nutrient loading on the waters of the Commonwealth



Compliance Problems

3

Management of Lagoons

- Lagoon Design
- Capacity problems
- Leaking lagoons
- Spray Irrigation Problems
 - Application rate
 - Contractor practices
 - Seasonal problems

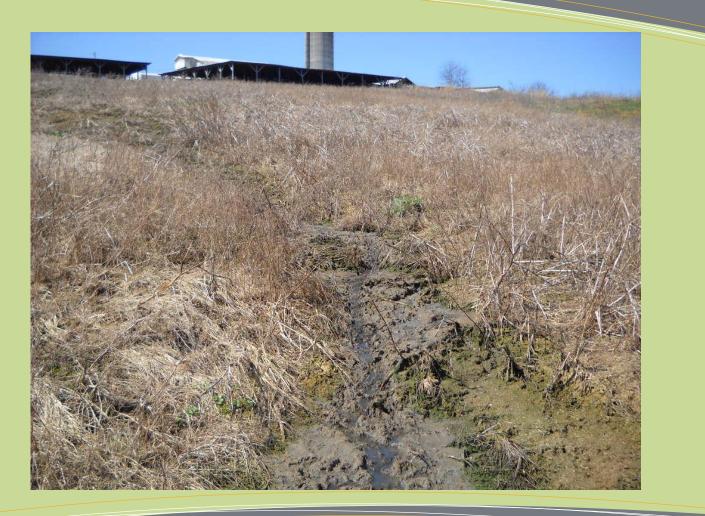


So, What?

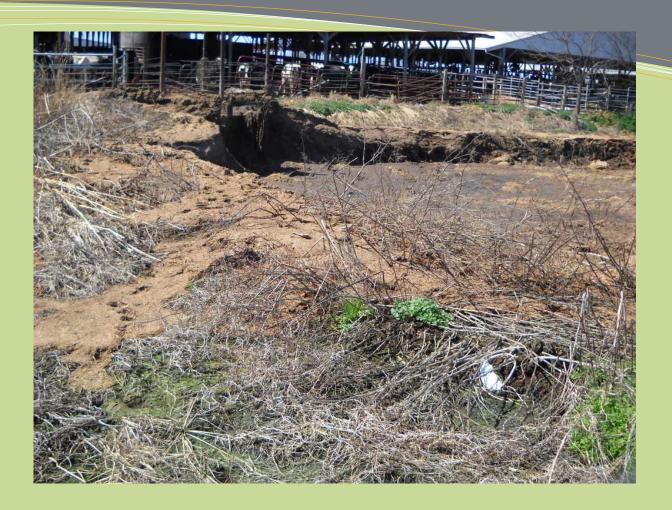
- If you cannot operate your manure management system in compliance with permit conditions and without degrading the waters of the commonwealth, then an alternative management system may be appropriate
- Mismanagement can have serious human health impacts
 - E-coli
 - Fecal Coliform



Example Issues











7







The Consequences

- The 1993 Milwaukee Cryptosporidium outbreak was a significant distribution of the <u>Cryptosporidium protozoan</u> in <u>Milwaukee</u>, <u>Wisconsin</u>, and the largest waterborne disease outbreak in documented <u>United States</u> history.
 - <u>http://animal.discovery.com/videos/monsters-inside-</u> me-cryptosporidium-outbreak.html
 - initially it was determined to be caused by the cattle genotype versus human genotype of the parasite as originally suggested



Greenhouse Gas (GHG) Issues

Endangerment Finding

- EPA's determination that greenhouse gas emissions are "reasonably ... anticipated to endanger human health and welfare"
- So, What's the Big Deal?
 - EPA has the authority to regulate GHG
 - It's not a done deal!



GHG (Continued)

- GHG Mandatory Reporting Rule (GHG MRR)
 - Report only
- Tailoring Rule
 - Permitting of GHG



GHG MRR

12

 Requires reporting of greenhouse gas (GHG) emissions from all sectors of the economy in the United States

- Provides accurate and timely data to inform future climate change policies and programs
- Does not require control of GHG



Who Reports?

- A facility must evaluate each source category to assess applicability to the rule.<u>"All-in" source</u> <u>categories: All of the facilities that have an "all-in"</u> <u>source category within their boundaries are</u> <u>subject to the rule.</u>
- <u>Threshold categories: Aggregate these categories</u> to assess the 25,000 metric tons CO2e per year reporting threshold



When to Report and How?

- Electronic Reporting to EPA
 - Note: There is no state reporting requirement nor does Ky DAQ report GHG to EPA for facilities
- Monitoring begins January 1, 2010; first reports due March 31, 2011



Permitting of GHG

- On December 23, 2010, the U.S. Environmental Protection Agency (EPA) issued a series of rules that put the necessary regulatory framework in place to ensure that
 - 1) industrial facilities can get Clean Air Act permits covering their greenhouse gas (GHG) emissions when needed and
 - 2) facilities emitting GHGs at levels below those established in the Tailoring Rule do not need to obtain federal Clean Air Act permits.



Permitting (Continued)

- EPA has been working with state local agencies since that time to make sure that:
 - All permitting agencies have the authority to permit GHGs or are on the path to have such authority, with EPA serving as the permitting authority in the interim, and
 - Only those sources identified in the tailoring rule the largest emitters of GHGs are required to obtain permits.





What Does All of This Mean?

17

- Greenhouse gases are on the regulatory radar
- Small sources and farms are not included NOW
 - So, Why reduce GHG emissions if I am not required to?
 - Image: Carbon neutrality/carbon footprint
 - Getting ahead of the game
 - "The right thing to do"
 - It may make operational sense
 - Economic
 - Production capacity



Questions and Contact

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