Department of Agriculture, Trade and Consumer Protection

A G E N D A

Livestock Siting Technical Expert Committee

Friday, February 15, 2019
9:00 a.m. to 3:00 p.m.

DATCP
Board Room 106
2811 Agriculture Drive
Madison WI 53718

9:00 a.m.	**Call to Order**
9:05	**Review of January 29th Meeting Notes:** Committee Members, Advisors, and DATCP Staff
9:25	**Overview of Issues Related to Waste Storage and Runoff Management Standards:** Presented by DATCP Staff
10:00	**Discussion of Second Committee Assignment – Waste Storage and Runoff Management**
10:30	**Break**
10:45	**Continue Discussion**
12:00 p.m.	**Lunch**
12:45	**Discussion of Issues Relating to Livestock Siting Procedures – Permit Modification and Monitoring Compliance**
1:50	**Break**
2:00	**Continue Discussion**
2:45	**Wrap Up and Future Meetings:** DATCP Staff • Summary of progress on assignment and decision on need for additional discussion • March meeting
3:00	**Adjourn**

Department of Agriculture, Trade and Consumer Protection

Notes

Livestock Siting Technical Expert Committee

Tuesday, January 29, 2019
9:00 a.m. to 2:30 p.m.

DATCP
Board Room 106
2811 Agriculture Drive
Madison WI 53718

Present: Kevin Beckard (by phone), Chris Clayton (chair), Richard Castelnuovo, Brian Holmes, Tonya Gratz (by phone), Jerry Halverson (by phone), Mary Anne Lowndes, Chuck McGinley (by phone), Bob Pofahl, Patrick Schultz, Robert Thiboldeaux, Scott Mueller, and Gretchen Wheat. Erin Cortus (by phone) attended to provide insight into the OFFSET model and odor research.

The meeting was convened at 9:15 a.m., and began with member introductions and overview of the odor standard and proposed changes in managing odor.

Erin Cortus share information about OFFSET that might help inform their decision making. She noted that the old emission rates and control practices in OFFSET have not been updated to reflect latest research and technology. Since 2009, there have been no odor studies in dairy and swine except for some investigations related to mitigation of swine odors. Iowa State has active program known as Air Management Practices Assessment Tool (AMPAT) which includes summary of the effectiveness of mitigation practices. The group discussed that some odor control practices such as chemical or biological additives for manure storage structures may not be reliable.

The following are intended to capture the points of agreement:

- In most cases, the current 350-foot property line setback for manure storage (liquid only) and other high odor sources (housing types such as slatted floor, pull plug to storage and alley flush to storage) does not provide adequate separation to protect homes and other neighboring landowners.
    - Solid manure stacks and storage facilities for storing dry manure should not be treated as high odor sources.

- Setbacks for high odor sources should be increased based on the size of a livestock operation.
    - The larger the operation, the larger the setback for new high odor sources.
    - There is a direct correlation between a size of livestock operations and the odor generated by liquid manure storage facilities located on those facilities.
    - Use of the OFFSET model is an appropriate method for establishing setbacks.

- Increased setbacks for high odor sources should be applied in a manner that provides appropriate protections for neighbors based on reasonable uses of the adjacent land.
    - This outcome cannot be accomplished by universally applying setbacks from the property line of a livestock facility.

    - Setbacks should be applied in a way that protects to residences or high use buildings.[1]
    - Zoning establishes reasonable expectations for the use of land.
        - In areas with agricultural zoning, where farming is the primary use of land, setback distances should be less than those where the facility is adjacent to or near an area not zoned for agriculture.
        - Setback distances should be greater for high use buildings than for residences.

- Livestock operators should have the option to receive credit toward a setback by implementing reliable and effective odor control practices.
    - Chemical or biological additives and diet manipulation are not reliable, and should not be among the approved odor control practices.
    - Credits applied to setback distances should reflect the effectiveness of a practice in controlling odor.
        - The expert committee's past recommendations related to odor control practices should be considered in setting credits.
    - Odor control practices can be combined to allow for additional setback credits, understanding that multiple practices have a cumulative impact with diminishing returns on controlling odor.
        - Certain practices should not be combined such as bottom filling and a cover for manure storage.
        - Allowable combinations might be identified by categorizing practices by their effect: reducing odor generation (diet manipulation), reducing odor emissions (scrubbers), and enhancing odor dispersion (windbreaks).
    - There should be a reporting and monitoring system to ensure that livestock operators implement odor control practices in accordance with specifications.
    - If local governments are permitted to reduce setbacks through variances, state law should establish clear standards for granting a variance.

- The current odor management standard, which relies on the odor score along with the existing setback distances, should be replaced by a system that incorporates setbacks based on odor generation combined with credits for odor control practices.
    - This new approach to the odor management and setback standards should be simpler and designed to offer livestock operators some level of flexibility and options.

- To the extent that odor management plans will assume a greater role, including replacing compliance with the odor score, then currently permitted livestock operators should be required to carry forward commitments to implement odor control practices in attaining a passing odor score.
    - The rule should provide local governments with effective mechanisms to ensure compliance with plans.

- DATCP should identify requirements that discourage building a house too close to a livestock facility with manure storage.

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[1] "High−use building" is defined as "A residential building that has at least 6 distinct dwelling units; a restaurant, hotel, motel, or tourist rooming house; a school building; a hospital or licensed care facility; or a non−farm business or workplace that is open at least 40 hours a week. The odor score for your livestock facility depends, in part, on the proximity and density of neighboring "high−use buildings." ATCP 51.01(16)

Assignment
Livestock Facility Siting Technical Expert Committee
February 2019

Scope of Second Assignment

The committee's assignment covers issues related to waste storage and runoff management. Under ATCP 51, waste storage facilities, animal lots, and feed storage must meet requirements related to their design, construction, and maintenance. In 2017, the department proposed changes to the rule that incorporate the latest NRCS technical standards while providing exemptions consistent with 2014-2015 technical committee recommendations for managing leachate and contaminated runoff from smaller feed storage facilities.

Also, this meeting will cover issues related to monitoring compliance and permit modifications. In 2017, the department proposed options for monitoring compliance and a means of modifying permits based on the 2014-2015 committee recommendations.

During the meeting, DATCP staff will present on the technical elements of the changes proposed to the waste storage and runoff management standards. The committee will address the issues, below, and determine whether their recommendations need to be updated based on the department's draft rule and/or more recent developments.

Notes will be prepared by DATCP staff reflecting the committee's discussions and recommendations.

Issues for Consideration: Waste Storage

Background: ATCP 51.18 establishes standards related to the design, construction, and maintenance of waste storage facilities. The livestock facility operator and a registered PE or certified agricultural engineering practitioner must certify the following in the application for local approval:

- Existing facilities were constructed to NRCS standards at the time of construction or are in good condition and repair, and meet certain evaluation criteria for safety
- New or substantially altered facilities comply with the NRCS 313 (November 2004) waste storage standard and NRCS 634 (November 2004) manure transfer standard
- Facility closures comply with the NRCS 360 (December 2002) standard

The 2014-2015 technical committee recommended the following changes to the waste storage standard:

- Upgrade to the latest NRCS 313 standard
- Improve the criteria for evaluating the safety of existing storage structures including criteria for emptying storage structures and requirements for test pits or borings

Prior to NRCS' adoption of the latest technical standards related to waste storage and transfer systems in October 2017, the department proposed the following changes to the rule:

- Adopt NRCS technical standards:

    - NRCS 313 (January 2014) for storage
    - NRCS 634 (January 2014) for transfer systems
- Add requirements to the evaluation of existing storage if no reliable construction documentation exists, including emptying storage to perform inspections and higher level investigations
- Require closure of waste storage facilities that cannot be shown to be safe

Questions for the Technical Expert Committee:

1. Should the current NRCS 313 standard adopted in 2017 be incorporated into ATCP 51?

2. Should storage structures designed solely for the purpose of collecting leachate and runoff meet the current NRCS 313 standard and be advised of additional requirements in NR 213?

3. Should the siting rule require manure storage for livestock facilities over a certain size (e.g. 750 animal units)?

Issues for Consideration: Runoff Management

Background: ATCP 51.20 establishes standards for managing runoff from animal lots and feed storage facilities. The livestock facility operator and a registered PE or certified agricultural engineering practitioner must certify the following in the application for local approval:

- Existing animal lots meet phosphorus runoff limits as determined by the BARNY model
- New or substantially altered animal lots comply with the NRCS 635 (January 2002) wastewater treatment strip standard
- Feed storage facilities are managed to prevent a significant discharge by meeting requirements related to storing high moisture feed (70%)

Wisconsin NRCS adopted new technical standards for vegetated treatment areas (VTAs) in September 2016 and waste treatment in January 2017.

Animal Lots: The 2014-2015 technical committee recommended the following changes to the runoff management standard as it relates to animal lots:

- Retain the BARNY model as the tool for predicting runoff from animal lots.
- Require a livestock facility to submit documentation (e.g. a printout of the BARNY model inputs and outputs) as part of its siting application to verify compliance.
- Require applicants to document management or structural practices proposed as "minor alterations" to achieve compliance with ATCP 51.20(2) runoff thresholds for animal lots. The applicant must submit a design for the practice that meets the applicable NRCS or other technical standard.

- The rule should specify the changes that are minor alterations including lot cleaning, changes to provide laminar flow (e.g., shaping, seeding), roof gutters, diversions, underground outlets, and sediment basins.
- Modify the rule to require installation of "minor alterations" within one year of a permit approval, and authorize a local government to shorten that time if the unmanaged runoff presents an unacceptable risk of contamination to surface or groundwater.

In 2017, the department proposed the following changes to the rule:

- Incorporate the most current NRCS 635 technical standard for waste treatment from new and substantially altered lots.
- Allow an option for the collection and transfer of runoff to storage for all lots.
- Retain the BARNY model that recognizes the use of VTAs to manage runoff from existing animal lots.
- Better define "minor alterations" consistent with committee recommendations.
- Create exceptions to the provision that allows 2 years for construction, requiring that the operator construct within 6 months any structure needed to control a discharge.

Feed Storage: The 2014-2015 technical committee recommended the following changes to the runoff management standard as it relates to feed storage:

- Require livestock facilities with 500 or more animal units to meet the NRCS 629 (January 2014) waste treatment standard for the design, construction and maintenance of new or substantially altered bunker silos, paved or other lined structures that store feed with as low as 40 percent moisture.
- Allow livestock facilities under 1,000 animal units to design and construct new or expanded feed storage structures smaller than one acre in accordance with the appropriate Table 1, 2, or 3 in NRCS 629 (January 2014) if the proposed storage structures present low environmental risks not requiring a collection system or VTAs. A clean water diversion would be required, if applicable.
- Require applicants to evaluate existing bunker silos, paved or other lined feed storage structures from ½ to ¾ acre in size to determine if the structures are in good condition and do not present risks of discharging leachate or contaminated runoff to waters of the state.
- Make operators follow increased management requirements for existing feed storage structures.

In 2017, the department proposed the following changes to the rule:

- Require new and substantially altered feed storage facilities to be designed according to NRCS 629 (January 2017), and manage leachate and contaminated runoff by collecting and storing for future land application or treating the runoff in accordance with NRCS 635 (September 2016), with this exception: New and substantially altered facilities less than one acre may meet less demanding standards designed to prevent significant discharges.

- Develop procedures for evaluating the condition of existing feed storage structures to ensure that they do not pose an environmental risk.
- Include maintenance requirements such as clean water diversion and collection of first flush.

Questions for the Technical Expert Committee:

1. The latest standard for vegetated treatment areas (VTAs), NRCS 635 (September 2016), includes more demanding requirements than the VTA standard in the siting rule. For example, the latest NRCS 635 standard requires collection and storage of runoff during the non-growing season. Also, the latest standard in effect does not allow 15 lbs. of annual phosphorus runoff from the end of a VTA, as does the siting rule. How do the more demanding requirements for vegetated treatment areas (VTAs) in NRCS 635 (September 2016) change how we determine allowable discharges (modeled using BARNY) for existing animal lots? Specifically, should the siting rule add one of the following requirements:
    a. Using BARNY, a maximum predicted discharge of phosphorus from the end of a VTA of 5 lbs. per year.
    b. Discontinuing the use of BARNY, certification by a professional engineer that the VTA is designed to prevent a significant discharge.

2. Should we incorporate the latest technical standards for new and expanding feed storage structures NRCS 629 (January 2017) and NRCS 635 (September 2016)?

3. The draft rule provides an exception for feed storage less than one acre in size. See draft ATCP 51.20(4)(e). Do you agree with the way the draft rule handles new and expanding feed storage structures less than one acre in size given the current requirements for VTAs in NRCS 635?

4. For existing feed storage structures:
    a. Do you agree with the engineering evaluation and repair system in draft ATCP 51.20(4)(b)?
    b. Do you agree with the addition of operation and maintenance requirements in draft ATCP 51.20(4)(c)?

Issues for Consideration: Monitoring Compliance

2014-2015 TEC recommendation:

- Provide support and guidance for efforts to monitor compliance by developing checklists and other support

Draft rule proposals:

- ATCP 51.34(4) would allow local governments to require annual self-certification and inspections.
- ATCP 51.34(4) would require the use of a standard checklist for self-certification and inspections.
- ATCP 51.30(5) would clarify the application review process in cases where local governments determine an application to be incomplete.

Question for the Technical Expert Committee:

What additional recommendations are appropriate for improving support for the monitoring of permitted facilities (e.g. checklists and evaluation tools for feed and manure storage structures)?

Issues for Consideration: Permit Modification

2014-2015 TEC recommendation:

- Simplify permit modification process enabling facilities to secure streamlined approval of Nutrient Management Plans when adding animal units

Draft rule proposals:

- ATCP 51.34(4m) defines a permit modification process in ATCP 51 and establishes a standard application for permit modifications.
- ATCP 51.30(4) limits the fee to $500 in a local ordinance.
- ATCP 51.34(4m)(b) and (c) set limits for permit modifications:
    - Maximum allowable increase in animal units is 30% above the number in the last full permit.
    - Maximum allowable number of application worksheets is three.

Question for the Technical Expert Committee:

1. Does the permit modification process in the draft rule achieve the goal set by the committee?

2. Do the proposed permit modification procedures create unintended loopholes for livestock operators to avoid meeting siting requirements?