

A G E N D A

Livestock Siting Technical Expert Committee

Tuesday, November 18, 2014

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 October 15th meeting notes – Jeff Lyon
- Flowchart for feed storage evaluation
- 9:15 Completion of Second Committee Assignment
- BARNY v. APLE – Steve Struss, DATCP
 - Discussion of Engineering Questions No. 2, 4, and 6– Members
- 10:30 Break – Coffee provided
- 10:45 Discussion of Third Committee Assignment – Members
- 12:00 p.m. Lunch – Provided
- 12:45 Continue Discussion of Third Committee Assignment – Members
- 1:30 Nutrient Management Background Presentation for Question # 4 – Sue Porter & Sara Walling, DATCP, Pat Murphy, NRCS
- Revisions to the NRCS 590 standard
- 1:50 Break
- 2:00 Continue Discussion of Third Committee Assignment – Members
- 2:45 Wrap Up and Future Meetings – Jeff Lyon
- Summary of progress on assignment and decision on need for additional discussion
 - Discussion of future meetings-December and beyond
- 3:00 Adjourn

MEETING NOTES

Livestock Siting Technical Expert Committee

September 18 and October 15, 2014

Attendees

Members: Kevin Beckard, Mark Borchardt, Tonya Gratz, Jerry Halverson, Brian Holmes, Chuck McGinley, Bob Pofahl, and Mark Ruark. Advisors: Joe Baeten, Richard Castelnuovo, David Panofsky, Sue Porter, John Ramsden, Steve Struss, Robert Thibodeaux, and Gretchen Wheat. Additional attendees: Lisa Trumble. Absent: Pat Murphy

Notes for the committee are intended to capture the committee's consensus regarding responses to assignment questions, and will be maintained on a cumulative basis. Notes will be presented to the committee for further review at future meetings. The following are the cumulative notes for the first two meetings.

Consistency of rules

Question #1

To be consistent with the state standards in NR 151 and ATCP 50, ATCP 51 should include a requirement for livestock operators to manage their operations to avoid significant discharges of process wastewater. The "zero discharge" standard in NR 243 should not be incorporated into ATCP 51. In applying this new standard, ATCP 51 should use the definition of process wastewater and significant discharge in NR 151. Complying with this standard will depend on a number of factors including a farm's location to waters of the state. The siting application should be modified to better document current and future compliance with this requirement.

Question #2 (as modified at second meeting)

ATCP 51 should require that new and substantially altered bunkers, paved or other lined feed storage facilities be designed, constructed and operated in accordance with NRCS standard 629 (January, 2014) and NRCS standard 635 (September, 2012) except that facilities proposed in low risk locations may not need to install collection systems or vegetative treatment areas if certain conditions are met. This exception is only available to proposed livestock facilities under 1,000 AU. As a first step, a permit applicant must have an evaluation of their site and existing facilities conducted using the procedures discussed in the response to Engineering Question #5. Applying the evaluation criteria in NR 151.055(3), it must be determined that any existing facility subject to alteration ("expanded facility") is not causing a substantial discharge. The evaluation also must document that the proposed new or expanded facility has adequate separation distances to protect against surface water and groundwater contamination. In addition, the evaluation must show that the soils near the new or expanded facility do not have a high potential for leaching

contaminates to groundwater. The committee discussed further limiting the exception to exclude new or expanded facilities that exceed 0.5-1.0 acres in size.

If these required conditions are met, applicants can receive approval of the proposed facility if they (1) design and construct the new facility, or new portion of the expanded facility, in accordance with Tables 1, 2, or 3 in the current NRCS standard 629, and (2) divert clean water away from the new or expanded facility.

These design and construction requirements apply to new or substantially altered storage areas that hold commonly stored feeds, not just feed over 70 percent moisture (cannery, brewers and distillers byproduct feeds). The committee considered applying these requirements to facilities that store feed with as low as 40 percent moisture, but also considered using a percentage somewhere between 40 and 70 percent. The design and construction requirements do not apply to feed stored in bags or tower silos.

Question # 3

For all volumes generated, milking center wastewater should be discharged to manure storage or another structure that meets the design criteria of NRCS standard 313 except if the livestock facility produces less than 500 gallons of wastewater daily and does not store the wastewater for an extended period, then the livestock operation must use the treatment practices described in NRCS standard 629 (January 2014).

Question # 4

To be consistent with the state standards in NR 151 and ATCP 50, ATCP 51 should require that cropland covered by a permitted facility's nutrient management plan have an average Phosphorus Index (PI) of 6 over a rotation and annual PI not to exceed 12, consistent with the requirements of NR 151.04. A facility's required nutrient management plan, if it includes an appropriate phosphorus index (PI) calculation value, may be used to demonstrate compliance these PI requirements. A livestock operator may meet the phosphorus management requirements in NRCS standard 590 (September, 2005) by using a soil test management approach as an alternative to a PI calculation. A local government may request NM plan updates and other documentation to monitor a permitted facility's compliance with the PI requirement.

Question #5

ATCP 51 should incorporate the following standards adopted in NR 151 and ATCP 50:

- a. A requirement that pastures be managed to control erosion and be covered by a nutrient management plan if they have certain stocking rates.
- b. A requirement that tillage not be conducted within a 5-20 foot setback between cropped fields and surface water.

As a condition of their permits, livestock facilities would be responsible for maintaining compliance with these requirements on all land, including rented acres.

Question #6

DNR does not currently enforce the tillage setback through its CAFO permits, but it may revise its rule requirements to incorporate this and other NR 151 requirements. While DNR does not

currently enforce the annual maximum PI of 12, it has other CAFO requirements that function in a similar manner and may include this particular requirement in a future rule update. DNR may also require CAFOs to prepare a pasture management plan. After considering how NR 151 standards are applied to CAFOs, the committee did not recommend any adjustments to its recommendations for questions 1 through 5 above.

Question #7

To be consistent with ATCP 50, references in ATCP 51 should be updated to reflect the following NRCS technical standards:

- a. NRCS technical guide waste storage facility standard 313 (January, 2014).
- b. NRCS technical guide, closure of waste impoundments standard 360 (March, 2013).
- c. NRCS technical guide waste treatment standard 629 (January, 2014)
- d. NRCS technical guide waste transfer standard 634 (January, 2014).
- e. NRCS technical guide vegetated treatment area standard 635 (September, 2012).

The committee recognized that references to the NRCS standards listed, and possibly additional NRCS standards, will need to be updated in ATCP 51.

Engineering

Question # 1

For the purposes of the siting rule, BARNY is a more appropriate tool than BERT for evaluating animal lot runoff and design practices to meet targets for annual phosphorus runoff. BERT does not account for local rainfall conditions, does not generate a result expressed in terms of annual phosphorous runoff, and does not provide design practices to reduce runoff. Despite its limitations, BARNY has a long history and wide acceptance as a tool to assess barnyard runoff. NRCS currently maintains BARNY as worksheet in [Spreadsheet on Vegetated Treatment Areas](#). NRCS will be updating BARNY to include the most recent NOAA rainfall data. Before making a final recommendation, the committee will evaluate the Annual Phosphorus Loss Estimator (APLE) for barnyards, developed by UW-Madison research soil scientist Peter Vadas, to determine whether it is a better tool than BARNY.

Whichever model is used, a local government should be allowed to require a livestock applicant to submit documentation (e.g. a printout of the model inputs and outputs) to demonstrate compliance with the runoff limits for barnyards. Most agreed that this documentation is easily provided, is often voluntarily submitted, and should be available to local governments if it is not voluntarily provided.

Question # 3

The evaluation standards and procedures for existing storage structures, as reflected in [Worksheet 4 \(Appendix A, 390-33\)](#) and [Existing Manure Storage Evaluation Flowchart](#), are reasonable and consistent with sound technical principles. Minor adjustments in the evaluation standards might be appropriate, such as extending the allowable window from 3 to 10 years for properly designed storage facilities that are not steel or concrete. Additional guidance should be provided to engineering professionals who conduct evaluations of storage facilities. For example, it is usually necessary to empty a facility, particularly earthen-lined structures, to

conduct a valid inspection, however this may be difficult. A number of factors may determine whether there is reasonable cause to fully empty a facility, including its age, the results of visual inspection of its exposed area, and the likelihood that agitation may have compromised its liner. If no documentation is available regarding a facility's separation distances to groundwater or bedrock, test pits or borings may be required to complete a facility evaluation. This approach is consistent the procedures used by DNR in its evaluation of storage facilities under NR 243.

By definition, a manure storage facility includes the waste transfer portion of the facility. It is feasible to evaluate exposed portions of an existing waste transfer system. If the waste transfer system was installed according to technical standards, a professional engineer could review the design and "as-built" documentation. Reception tanks may be visually inspected, or assessed for leakage using soil borings. Likewise open channels and equipment such as pumps and valves can be visually inspected. The evaluation of conveyances, such as underground pipes, is more challenging; it may not be realistic to require pressure testing of pipes or digging test wells at various intervals along its length. The committee will review a flowchart for the assessment of waste transfer systems, to be prepared by staff.

Question # 5

Existing permanent feed storage facilities should be evaluated to determine whether they (1) are in good condition, and (2) do not present risks of discharging leachate or contaminated runoff to waters of the state. The evaluation should determine if the facility is causing a substantial discharge using the criteria in NR 151.055(3). For facilities constructed within the last 10 years, the evaluation should determine if the facility was designed according to then-existing standards. To establish that a facility is in good working condition a visual inspection should be performed looking for signs of failure (e.g. cracks) or discharge of leachate. The evaluation also should determine the separation distances of a facility from streams, lakes, areas of concentrated flow, wetlands, floodplains and other surface waters susceptible to pollution risks. In terms of groundwater risks, the evaluation should determine the separation distances of a facility to bedrock and saturated soils, and the leaching potential of the soils underlying the facility. Tables 1 through 3 in the NRCS standard 629 should be used as a starting point to determine adequate separation distances.

ATCP 51 should include management requirements for existing storage facilities including those that are operated without modification. The requirements for clean water diversion and leachate collection in ATCP 51.20(3) should be retained for existing paved facilities that store feed with 70% or more moisture content (cannery, brewers and distillers byproduct feeds). In addition, livestock operators should be required to divert clean water, and follow basic management practices such waste feed cleanup and proper snow plowing, for all feed storage facilities.

The committee will address Engineering questions #2, #4 and #6 of their second assignment on November 18th.

Assignment- Nutrient Management Livestock Facility Siting Technical Expert Committee

Scope of Third Assignment

The committee's third assignment focuses on nutrient management (NM). Nutrient management planning in Wisconsin is described by the Natural Resources Conservation Service's (NRCS) 590 Nutrient Management Standard which includes managing the amount (rate), source, placement (method of application) and timing of plant nutrients and soil amendments. The issues and questions listed below originated through DATCP listening sessions conducted with various interested parties and stakeholders, and input from Livestock Facility Siting Review Board (LFSRB), as well as from issues identified by Livestock Siting staff through implementation of the law over the last four years. For ease of reference, the text of ATCP 51 related to nutrient management is included at the end of this document. The following are the specific nutrient management issues and questions for you to consider:

1. Documentation that may be requested by Local Governments

Non-WPDES Permit Holders (Operations with <1,000 Animal Units (AUs))

ATCP 51.16(1)2.(b) gives local governments the ability to request additional documentation to substantiate the applicant's responses to questions on the NM checklist, which demonstrates compliance with the Siting Law's nutrient management requirements.

Some political subdivisions may focus their resources on conducting a more thorough review of nutrient management plans for siting permit applicants to ensure that the land base exists and spreading restrictions are acknowledged. DATCP reviews numerous NM plans annually. The fastest, most consistent method for plan review is through analyzing the applicant's SnapPlus database and NRCS 590 NM restriction maps, which include soil types and associated spreading restrictions, and reviewing the NMP reports to determine compliance with the NRCS 590 Standard.

WPDES Permit Holders (Operations with >1,000 AUs)

While applicants with less than 1,000 AUs must submit the Appendix A, Worksheet 3 (Waste and Nutrient Management) information, and more if requested, as part of their permit application, WPDES permitted operations are exempt from the requirements of ATCP 51.16 (a), including demonstrating compliance with the NRCS 590 NM Standard and submitting Appendix A, if they submit their current WPDES permit covering an equal or greater number of AUs to the number for which they are seeking local approval under their siting permit. (ATCP 51.16(4)).

Having accurate information about the number of AUs approved under the WPDES permit and resulting manure generated is very important to local governments when approving the application because the farm must own or rent enough land to distribute all manure produced to comply with NRCS 590 and the nutrient management requirements in ATCP 51.16. The WPDES application materials contain information regarding AUs, however, the WPDES permit itself does not include the AU number approved in the WPDES permit, nor is there information to assure the local government that the applicant's operation is complying with all applicable nutrient management requirements. For

instance, a 3-year-old WPDES permit may not reflect current operating conditions and therefore not match the application condition or AU level requested in the Siting application.

Under the current exemption, it is unclear if local governments are allowed to request additional information to substantiate the applicant's compliance with their WPDES permit, AUs permitted, or NRCS 590 standard requirements.

QUESTION: Should local governments be given the ability to request additional documentation from WPDES permit applicants?

What information and documentation would be helpful for local governments to request to substantiate compliance? For example: items included in the NRCS 590 NM plan and Checklist, nutrient application restriction maps, and/or NM database, specific WPDES Permit Components?

2. Nutrient Management Planning for the Application's Maximum Animal Units

ATCP 51 currently requires that applicants prepare a NM plan in compliance with the NRCS 590 Standard and the NM Checklist components. Determining compliance with many aspects of the NRCS 590 Standard, especially the phosphorus requirements, includes assessing all nutrient applications over the course of a rotation, not on an annual basis.

The Livestock Facility Siting Review Board (LFSRB), in the case of [Van Dyke v. Racine County](#), was asked to determine if a local government could conditionally approve a nutrient management plan for fewer than the maximum number of animal units requested by the applicant. The LFSRB determined that applicants must submit NM plans which "reflect that the amount of land available to spread the manure volumes calculated to be generated by the maximum number of animal units".

However, some local governments and landowners would contend that requiring NMPs to include the maximum AUs and manure volumes requires an operation to obtain additional owned or rented land base sometimes years in advance of when their operation would need that additional acreage. Using conditional approvals has allowed some jurisdictions to monitor an operation's growth annually and assess NM requirements and adequate land base determinations annually as well.

Contrastingly, some local governments may or may not have the resources to monitor and regulate AU increases over time to ensure compliance, making it important for the initial NM plan or land base calculation to account for all manure generated by the maximum number of AUs included in the permit. Planning to the maximum AUs allows all jurisdictions to have a level of confidence that the applicant has the planned ahead to obtain the spreadable land they need.

Lastly, the current rule provides for permit modifications ([ATCP 51.34\(4\)\(b\)2.](#)), which enables livestock operators to have their animal unit additions quickly approved by usually revising two worksheets (animal units, waste and nutrient management), rather submitting a full-blown permit application. Taking this approach, an operator submits his or her original permit application for the number of animal units anticipated in the "near future" and a NM plan to match. If the AU number is less than the AU number the operation is designed to hold, then before adding animal units, the operator may request a permit modification and submit the needed worksheet revisions to accomplish

this. Because permit modifications are only available for “reasonable changes,” expansions over a set amount or beyond the initial application’s maximum AU level would require a new application and related documentation. So, for example, a person could not double the size of a permitted operation from 500 to 1,000 AUs through a permit modification, and thus avoid the scrutiny and steps related to the full permitting process.

QUESTION: Should the rule requirements for maximum AU planning remain as is, or should other options be explored? Is the permit modification process feasible, implementable, and reliable enough to be used as an option?

3. Evidence of Rented Land Available for Spreading

The note in ATCP 51.16(2) indicates a complete application must include a waste and nutrient management worksheet (Appendix A, Worksheet 3) that identifies the acreage currently available for land spreading and provides a land spreading map.

The rule does not require that the NM plan or Checklist identify owned versus rented acres. It has been recommended that DATCP establish requirements for showing ownership of, or having rental agreements in place, for sufficient acres to manage the maximum number of animal units anticipated. Others contend that rental agreements that extend beyond one or two crop years can be difficult to obtain given the constantly fluctuating commodity prices and land values and requiring long-term, signed contracts to demonstrate land control could prove extremely difficult.

DNR’s WPDES program requires CAFOs to submit field information describing the rental length, landowner name, and whether the land is shared. The WPDES program requires this information be updated through annual WPDES NMP updates, but there are difficulties in tracking whether rental agreements are submitted and updated. In cases of limited acreage available for land application, DNR has the authority to ask for signed contracts between the farm and landowner (NR 243.14(1)(b)). DNR is requesting such contracts on a more frequent basis. If a permitted facility only enters into a manure spreading agreement, it has less control over the field than if it was rented (i.e. the permitted facility doesn’t determine what crops are grown, what nutrients are applied, what tillage occurs, etc.) which can impact spreading rates and availability of the spreadable acres.

QUESTION: When determining permit approval related to land base access for spreading, would it help local governments if applications identified the acres owned versus rented? If so, what is the best way to accomplish this?

4. NRCS 590 Nutrient Management Standard Exclusions and Local Restrictions

Under the siting law, a local siting ordinance must spell out every standard that a livestock operator must meet to obtain a permit. Under this framework, a local government does not have discretion to impose winter spreading restrictions that are not spelled out in advance in a local ordinance. Accordingly, the siting rule excludes local governments from implementing section V.A.2.b.(2) of the NRCS 590 standard, which authorizes the imposition of site-specific manure application restrictions

involving “locally identified areas delineated in a conservation plan as contributing nutrients to direct conduits to groundwater or surface water as a result of runoff.”

For example, the siting rule could establish winter spreading standards beyond those in the NRCS 590 Standard for specific high-risk conditions and these standards could then be incorporated into local ordinances. From a technical standpoint, it may be possible to identify what constitutes high risk conditions and the resulting risk-reducing practices required for farms exhibiting those high risk conditions, such as setbacks from certain features.

The WI NRCS 590 NM Standard (2005) is currently under revision by a team of technical experts to determine what requirements and parameters need to be adjusted to conform to the updated requirements in the National NRCS 590 NM Standard (2012). The revised WI NRCS 590 NM Standard is likely to include additional restrictions related to nitrogen application and winter spreading of manure and will be available for public review and comment in early 2015.

QUESTION: Should this committee identify the high risk conditions and risk-reducing practices that might be included in a siting rule standard related to winter spreading restrictions?

Should the Committee wait until the NRCS 590 NM Standard is revised before making recommendations since additional winter spreading restrictions are likely to be added as statewide requirement?

ATCP 51.16. Nutrient management. (1) NUTRIENT MANAGEMENT STANDARD.

(a) Except as provided in par. (c):

1. Land applications of waste from a livestock facility approved under this chapter shall comply with NRCS nutrient management technical standard 590 (September, 2005), except for sections V.A.2.b(2), V.D, V.E and VI.

Note: NRCS nutrient management technical standard 590 (September, 2005) is reprinted in Appendix B. The following sections of the reprinted standard do not apply for purposes of this chapter: V.A.2.b(2), related to additional requirements imposed by local conservation plans. V.D, related to additional criteria to minimize N and particulate air emissions. V.E, related to additional criteria to protect the physical, chemical and biological condition of the soil. VI, related to discretionary considerations.

2. A nutrient management checklist, shown in Appendix A, worksheet 3, part C, shall accompany an application for local approval. A qualified nutrient management planner, other than the livestock operator, shall answer each checklist question. The planner shall have reasonable documentation to substantiate each answer, but neither the planner nor the operator is required to submit that documentation with the checklist.

Note: A livestock operator is not required to submit a complete nutrient management plan with an application for local approval. Both the operator and the qualified nutrient management planner must sign the nutrient management checklist. See Appendix A, worksheet 3, part C.

(b) A political subdivision may ask a nutrient management planner to submit the documentation that the planner relied upon to substantiate the planner's answer to one or more questions on the nutrient management checklist under par. (a) 2. The political subdivision may deny local approval if the planner's documentation does not reasonably substantiate the answer.

(c) Paragraph (a) does not apply to a livestock facility with fewer than 500 animal units unless the operator's ratio of acres to animal units, calculated according to Appendix A, worksheet 3, part B, is less than 1.5 for dairy and beef cattle, 1.0 for swine, 2.0 for sheep and goats, 2.5 for chickens and ducks, and 5.5 for turkeys.

Note: A waste and nutrient management worksheet (Appendix A, worksheet 3) must accompany every application for local approval. Among other things, the worksheet shows the operator's ratio of acres to animal units under par. (c). Paragraph (c) is an exemption, not a requirement, for livestock facilities. If a livestock facility qualifies for exemption under par. (c), the operator is not required to submit a nutrient management checklist under par. (a). The ratios stated in par. (c) are based on the phosphorus content of manure from the respective livestock species.

(2) **PRESUMPTION.** For purposes of local approval, an operator is presumed to comply with sub. (1) if the application for local approval complies with s. ATCP 51.30.

Note: Under s. ATCP 51.30, an application must be complete, credible and internally consistent. The application must include, among other things, a waste and nutrient management worksheet (Appendix A, worksheet 3). The completed worksheet must include all of the following:

- The types and amounts of manure and other organic waste that the facility will generate when fully populated.
- The types and amounts of waste to be stored, the waste storage facilities and methods to be used, the duration of waste storage, and waste storage capacity.
- The final disposition of waste by landspreading or other means.
- The acreage currently available for landspreading.
- A map showing where waste will be applied to land.
- A nutrient management checklist if required under sub. (1). Local approval is conditioned upon compliance in fact (see s. ATCP 51.34 (4)). The presumption in sub. (2) may be rebutted by clear and convincing evidence in the record (see ss. ATCP 51.34 and 51.36).

(3) **NUTRIENT MANAGEMENT UPDATES.** An operator may update nutrient management plans and practices as necessary, consistent with sub. (1) (a) 1.

Note: This subsection does not require an operator to file updates with a political subdivision, but neither does it limit local authority to request updates or monitor compliance with sub. (1) (a) 1. See s. ATCP 51.34 (4).

(4) **EXEMPTION.** This section does not apply if all of the following apply:

- (a) The operator holds a WPDES permit for the same proposed livestock facility, and that permit is based on housing for a number of animal units that is equal to or greater than the number for which the operator seeks local approval.
- (b) The operator submits a copy of the WPDES permit with the operator's application for local approval. History: CR 05-014: cr. Register April 2006 No. 604, eff. 5-1-06.

ATCP 51.34. Granting or denying an application.

(4) **TERMS OF APPROVAL.** An approval under sub. (1) is conditioned on the operator's compliance with subch. II and representations made in the application for approval. This chapter does not limit a political subdivision's authority to do any of the following:

- (a) Monitor compliance.
- (b) Withdraw an approval, or seek other redress provided by law, if any of the following apply:
 - 1. The operator materially misrepresented relevant information in the application for local approval.
 - 2. The operator, without authorization from the political subdivision, fails to honor relevant commitments made in the application for local approval. A political subdivision may not withhold authorization, under this subdivision, for reasonable changes that maintain compliance with the standards in subch. II.
 - 3. The livestock facility fails to comply with applicable standards in subch. II.

Note: A political subdivision should exercise sound judgment in deciding whether to take compliance action under sub. (4) (b). The political subdivision may consider extenuating circumstances, such as adverse weather conditions, that may affect an operator's ability to comply. A political subdivision may also consider the nature and seriousness of the violation, whether the violation was intentional or accidental, the operator's compliance history, consistency of enforcement, and whether the problem can be resolved without formal enforcement. Before taking compliance action, a political subdivision should give the operator notice and a reasonable opportunity to demonstrate compliance.