

Unofficial Text (See Printed Volume). Current through date and Register shown on Title Page.

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Wisconsin Department of Agriculture, Trade and Consumer Protection
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Worksheet 5 – Runoff Management

Instructions: This worksheet must be signed by a registered professional engineer or *certified agricultural engineering practitioner* (you must also sign). Signers attest to statements in this worksheet. You are responsible for compliance.

You are NOT required to complete this worksheet if you already hold a *WPDES permit* for the proposed *livestock facility* (for the same or greater number of *animal units*). Simply check the following box, sign at the bottom of this page, and include a copy of the *WPDES permit* with your application.

I enclose a copy of my *WPDES permit* in place of Worksheet 5.

Animal Lots¹

1. New or Substantially Altered Animal Lots: All *new* or *substantially altered animal lots* will be constructed according to the attached design specifications that comply with *NRCS Technical Guide Standard 635* (January, 2002). [Identify *animal lots* and attach design specifications for each *animal lot*.]

2. Existing Animal Lots Near Surface Waters: The following *animal lots* are located within 300 feet of a stream² or 1,000 feet of a lake. According to the *BARNY runoff model*, each of these *animal lots* has (or with minor alterations³ will have) predicted average annual phosphorus runoff of less than 5 lbs. per year (measured at the end of the treatment area). Runoff does not discharge to any direct conduit to groundwater. [Identify *animal lots* and minor alterations if any.]

3. Other Existing Animal Lots: The following *animal lots* are NOT located within 300 feet of a stream² or 1,000 feet of a lake. According to the *BARNY runoff model*, each *animal lot* has (or with minor alterations³ will have), a treatment area that reduces phosphorus runoff to an average of less than 15 lbs. per year (measured at the end of the treatment area). Runoff does not discharge to any direct conduit to groundwater. [Identify *animal lots* and minor alterations if any.]

Feed Storage

1. General. The operator agrees to manage feed storage to prevent significant discharge of leachate or polluted runoff to waters of the state.

2. Existing Feed Storage (High Moisture Feed). Existing paved areas and bunkers that may be used to store or handle high moisture feed (70% or higher moisture content) will meet the following standards:

- a) Surface water runoff will be diverted from entering the paved area or bunker.⁴
- b) Surface discharge of leachate will be collected before it leaves any paved area or bunker, if the paved area covers more than one acre. Collected leachate will be stored and disposed of in a manner that prevents discharge to waters of the state.⁵

¹ Treat multiple lots as one *animal lot* if runoff from the *animals lots* drains to the same treatment area or if runoff from the *animal lot* treatment areas converges or reaches the same surface water within 200 feet of any of those treatment areas.

² Indicated by a solid or dashed blue line on a 1:24,000 scale USGS topographic map.

³ "Minor alterations" are repairs or improvements that do not result in a *substantially altered animal lot*. "Minor alterations" may include conservation practices such as runoff diversions, contouring, and planting vegetation.

⁴ Runoff may be diverted by means of earthen diversions, curbs, walls, gutters, waterways or other practices, as appropriate.

⁵ Use safe methods to dispose of collected leachate. For example, leachate may be transferred to *waste storage structures* and then applied to land at agronomic rates.

Unofficial Text (See Printed Volume). Current through date and Register shown on Title Page.

Worksheet 5 (continued)

3. New or Substantially Altered Feed Storage Structures (High Moisture Feed): *New or substantially altered* feed storage structures (buildings, silos, bunkers or paved areas) used to store or handle high moisture feed (70% or higher moisture content) will be designed, constructed and maintained to the following standards [attach design specifications]:

- a) Surface water runoff will be diverted from entering the feed storage structure.¹
- b) Surface discharge of leachate will be collected before it leaves the feed storage structure.²
- c) The top of the feed storage structure floor will be at least 3 vertical feet from groundwater and bedrock.³
- d) Any feed storage structure with an area greater than 10,000 sq. ft. will have a subsurface drainage system to collect leachate that may leak through the structure floor. The subsurface drainage system must consist of drainfill material below the surface material, a tile drainage network designed to collect the leachate and deliver it to storage, and a subliner. The tile drainage network must, at a minimum, be installed at the perimeter of the structure only on the downgradient side(s). The sub-liner must, at a minimum, consist of one of the following:
 - Two feet of soil, either in place or installed, having a minimum of 50% fine soil particles (that pass a #200 soil sieve).
 - Two feet of soil, either in place or installed, having a minimum of 30% fine soil particles (that pass a #200 soil sieve) and a minimum PI (plasticity index) of 7.
 - A 40 mil liner of HDPE, EPDM or PVC.
 - A geosynthetic clay liner.
- e) Collected leachate will be stored and disposed of in a manner that prevents discharge to waters of the state.²

Nonpoint Pollution Standards

The livestock facility will be designed, constructed and maintained to do all of the following:

1. Divert runoff from contact with *animal lots, waste storage facilities, paved feed storage areas or manure piles* within 300 ft. of a stream or 1,000 ft. of a lake.
2. Avoid having any unconfined manure pile within 300 ft. of a stream or 1,000 ft. of a lake.
3. Prevent any overflow of *waste storage facilities*.
4. Restrict livestock access to waters of the state, as necessary to maintain adequate vegetative cover on banks adjoining the water (this does not apply to properly designed, installed and maintained livestock or farm equipment crossings).

Signature of Applicant or Authorized Representative Date

Professional Engineer's
Embossed Seal

Print Name of Engineer (include WI License No.) or Certified Practitioner

Signature of Engineer or Practitioner Date

Name of Firm and Address

¹ Runoff may be diverted by means of earthen diversions, curbs, walls, gutters, waterways or other practices, as appropriate.

² Use safe methods to dispose of collected leachate. For example, leachate may be transferred to waste storage and then applied to land at agronomic rates.

³ A tile system or curtain drain may be used to intercept lateral groundwater seepage, as necessary, to achieve the required distance to groundwater.