



COMPOSTING AT CAFOs April 2013

DESCRIPTION: A proposal for composting at a CAFO is subject to DNR review under s. NR 243.15(8), Wis. Adm. Code. This guidance outlines information typically needed for a composting proposal for manure, waste feed or mortality management. Information is also provided about other rules that apply to composting, and acceptable design criteria.

COMPOSTING PROPOSAL INFORMATION: The CAFO [Reviewable Facilities & Systems Checklist PDF](#) requests much of the same information that is listed here. DNR strongly encourages use of the checklist.

- Applicant and site location information:
 - Applicant information and authorized contact(s).
 - Property ownership, and location of facility by quarter-quarter section.
 - Present land-use.
- Composting process information:
 - Overview of composting process and types of materials that will be composted.
 - Volume of material involved, annually and total at one time (any material stored prior to composting, materials in-process composting or curing, and any stored finished material).
 - Description of areas for materials storage and composting.
 - Operation and maintenance plan (include operational monitoring, turning frequency, etc.).
 - Description of impacts to the nutrient management plan (NMP update accordingly).
- Map(s) identifying the following information:
 - Soils information.
 - Topography/relief information.
 - Surface waters including lakes, ponds, streams, rivers, wetlands.
 - Water supply wells and residences within one mile of the property boundary.
 - Location of composting, and associated components and areas.
- Soil conditions and engineering plans for the composting area, including:
 - Soil borings.
 - Depth to groundwater table and bedrock.
 - Proposed runoff control structures and clean water diversions.
 - Specifications for proposed components, including composting area working surface, leachate collection system and liner (meet NRCS 313, unless a roof is provided).
 - Scaled drawings of proposed location, layout of components and details.
- Submit the proposal under the seal of a professional engineer registered in the State of Wisconsin, required by s. NR 108.04(2)(c).

APPLICABILITY: Although composting is a treatment process, it is also a “storage facility”, as defined in s. NR 243.03(63), Wis. Adm. Code. Similarly, a bedded pack barn is manure storage, and depending on how it is operated, it may also be composting. If a farm composts mortalities, or accepts composting feedstocks from off site (depending on material types and quantities), the composting facility may be subject to rules in the NR 500 series Wis. Adm. Code (Solid Waste). However, whenever possible, it is the DNR’s intent to use the CAFO WPDES Permit to address all issues related to composting at a CAFO.

Temporary Location: Composting may be done in a crop field, subject to review as manure headland stacking by DNR Regional Staff.

LINER DESIGN, LOCATION & OPERATION:

Liner Design: These are guidelines. Other composting facility liner designs may be approved, if the proposal demonstrates the liner will achieve compliance with water quality standards, as required by s. NR 243.13(1), Wis. Adm. Code.

- A permanent composting facility will normally need a low permeability liner.
- In most cases, the DNR will accept a composting facility liner design that meets the NRCS Standard 313 (September 2012), Table 9 Liner Criteria for Permanent Solids Stacking Facilities. (Table 9 includes options for roofed vs. not roofed areas, work surface vs. no work surface, and compacted vs. in-place liners.) At sites with greater risk to water resources, a roof may be necessary if the Table 9 options of both no work surface and in-place liner are used.

Location: A CAFO composting facility is subject to the well setback requirements in s. NR 243.15(1)(a)2., Wis. Adm. Code, and the property line setback in the Livestock Siting Law. In addition, if composting feedstocks are accepted from off-site, setbacks in s. NR 502.12(8), Wis. Adm. Code, may apply.

Operation: Recommendations for composting facility operation can be found in the National NRCS Practice Code 317 Composting Facility. Operational criteria is also listed in s. NR 502.12(10) and (12), Wis. Adm. Code, that is required for mortalities composting, and may be required if composting feedstocks are accepted from off site.

- Composting means an aerobic decomposition process (with air or oxygen) as opposed to anaerobic digestion (without air or oxygen). However, it is understood that whole carcass mortality composting is at least partially anaerobic, and this is acceptable to a limited extent.
- Clean water must be diverted around the composting area.
- Contaminated runoff from the composting area must be collected and managed in accordance with an approved Nutrient Management Plan, unless an alternate method of disposition is approved.

FOR MORE INFORMATION:

- <http://dnr.wi.gov/topic/AgBusiness/CAFO/>
- Plan review staff : <http://dnr.wi.gov/topic/AgBusiness/CAFO/contacts.html>
- Call the Bureau of Watershed Management, (608) 267-7694.

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