Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

# Air Emissions and Odor Management Plan

**NPDES/SDS Permit Program**
Feedlot Program

*Doc Type: Permit Application*

**Purpose:** This *Air Emissions and Odor Management Plan* is incorporated into the National Pollutant Discharge Elimination System (NPDES)/ State Disposal System (SDS) Permit and made an enforceable part of the permit and submitted to the Minnesota Pollution Control Agency (MCPA).

Facility name: _____ Feedlot registration no. _____

Owner/Operator name: _____ Feedlot permit no. _____

## Methods/Practices Used to Minimize Air Emissions and Facility Odor Sources and Anticipated Odor Control Strategies

Choose at least one option for each emission source at the facility (Minn. R. 7020.0505, subp 4.B(1)(a) & (c))

| **Site sketch identification number** *(from permit application)* **and List of air emissions/Odor source(s)** | | **Practices employed to minimize emissions** | **Complaint response protocol** | |
|---|---|---|---|---|
| | | | **Odor potential** *(Without BMPs*)* | **Anticipated odor control strategies**** |
| ID # | Type of Air Emission/Odor Source | List number(s) from below | High, Med, or Low | List number(s) from below |
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |

*BMP = Best Management Practices

** In the event that odor complaints are received and validated by the MPCA/County Feedlot Officer (CFO), the facility/ownership agrees to implement the identified practices identified in this column, pursuant to MPCA request/approval.

**Practices applicable to multiple odor/emissions sources**

1. Develop a neighbor relations plan
2. Disperse/mix air with tree plantings
3. Establish adequate separation distances
4. Treatment of escaping air with control technologies
5. Reduce nutrient waste with diet manipulation

**Animal holding area(s) specific**

6. Maintain clean, dry floors to eliminate manure buildup
7. Eliminate manure buildup under gates, feeders, etc.
8. Promptly clean up any spilled feed
9. Reduce feed waste/water losses
10. Maintain exhaust fans and avoid manure and dust accumulation
11. Use spray oil to reduce dust
12. Higher oil and fat content in feed to reduce dust

**Dead animal holding/processing area(s) specific**

13. Manage mortalities as required by MN Board of Animal Health
14. Compost/manage mortalities in an enclosed structure
15. Use enclosed and refrigerated dead animal holding area

**Solid and Liquid Manure Storage Area(s) Specific**

16. Maintain crust on basin by switching to organic bedding
17. Cover liquid manure storage area with straw
18. Notify neighbors of manure agitation periods and avoid holidays
19. Cover liquid manure storage area with synthetic cover
20. Addition of chemicals to manure to reduce odor/emissions
21. Add straw or other bedding material to reduce odor/ emissions
22. Separate solids with settling basin or liquid/solid separator
23. Anaerobic digestion
24. Reduce length of time stockpile/manure pack is maintained
25. Solid manure composting
26. Cover the solid manure stockpile
27. Incinerate solid manure at approved/permitted facility

**Other practices**

28. I will consult the MPCA/CFO to identify changes that can be made to reduce odors following complaints *(anticipated odor control strategies column only)*
29. Other: _____
30. Other: _____

# Response to Documented Exceedance(s)

(Minn. R. 7020.0505, subp 4.B(1)(b))

**Initial here: _____,**

**by initialing here I indicate that I have read, understand, and agree to the requirements/procedures outlined below.** (initial is required for all facilities using this form)

In the event testing/monitoring conducted by the MPCA/County identify emissions in excess of standards set in applicable Minnesota Rules, Statutes, or other directives, the facility/ownership agrees to submit a plan of action following MPCA's request, which provides technical documentation that one (or more) of the following technologies will effectively control emissions in the short term as well as into the future:

## Liquid Manure Storage Areas (LMSA)

- Chemical additions to the LMSA
- Maintain natural crusting (blow straw to promote crusting if necessary)
- Maintain a straw cover
- Permeable synthetic cover (floating geo-textile, etc.)
- Impermeable synthetic cover (floating High Density Polyethylene [HDPE], etc.)
- Anaerobic digester
- Treatment of escaping air with odor control technologies

### Solid Manure Storage Areas

- Cover manure stockpiles with synthetic covers
- Remove manure packs more frequently
- Eliminate stockpiling by more frequent land application
- Incinerate solid manure for electricity
- Composting solid manure

### Animal Holding Areas

- Utilize bio-filters or other odor control technology for power ventilated buildings
- Decrease the amount of manure buildup in the animal holding areas

### Dead Animal Handling/Processing Areas

- Utilize enclosed and refrigerated dead animal holding area prior to rendering pick-up
- Animal mortality composting

The MPCA will, at its discretion, consider alternatives to the technologies listed above provided proper technical documentation is submitted that illustrates the alternative will undoubtedly minimize the emissions. The MPCA reserves the right to disapprove of the alternative if the MPCA deems the technical documentation incomplete or inaccurate or if the MPCA deems the alternative unsuitable for the unique circumstances at the facility.

The plan of action must identify when the technology will be installed and fully operational and should also identify what temporary measures can be taken to minimize emissions in the event the chosen technology will take a significant amount of time to install and make fully operational. The plan of action will be immediately implemented following approval by the MPCA and become part of this air emission and odor management plan and subsequently an enforceable part of the facility's NPDES/SDS Permit.