

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**ANIMAL MORTALITY FACILITY**

(No.)

**CODE 316**

**DEFINITION**

An on-farm facility for the treatment or disposal of livestock and poultry carcasses.

**PURPOSE**

This practice may be applied as part of a conservation management system to support one or more of the following purposes:

- Decrease non-point source pollution of surface and groundwater resources
- Reduce the impact of odors that result from improperly handled animal mortality
- Decrease the likelihood of the spread of disease or other pathogens that result from the interaction of animal mortality and predators
- To provide contingencies for normal mortality events

**CONDITIONS WHERE PRACTICE APPLIES**

This practice applies where animal carcass treatment or disposal must be considered as a component of a waste management system for livestock or poultry operations.

This practice includes disposal of normal animal mortality using composting facilities. This practice only applies to normal animal mortalities that occur on the operator's farm, and not brought in from other farms.

This practice does not apply to catastrophic mortality. The requirements of the State shall be followed to address catastrophic mortalities and mortalities resulting from disease.

It applies where on-farm carcass treatment and disposal are permitted by federal, State, and local laws, rules, and regulations.

It also applies where a waste management system plan as described in the National Engineering Handbook (NEH), Part 651, Agricultural Waste Management Field Handbook (AWMFH) has been developed that accounts for the end use of the product from the mortality facility.

**CRITERIA**

**General Criteria Applicable to All Purposes**

All structural components integral to composting facilities for animal mortality management shall meet the structural loads and design criteria as described in NRCS conservation practice standard 313, Waste Storage Facility, unless otherwise designated.

Where an animal mortality facility can be damaged by surface runoff, the runoff shall be diverted away from the facility.

**Laws and Regulations.** The planning and design of animal mortality facilities or processes must conform to all federal, State and local laws, rules and regulations. This includes provisions for closing and/or removing the facility where required.

**Location.** The location shall minimize the impact of the facility on odor and other air quality issues affecting neighboring residences, as well as minimizing the impact of the facility on surface and ground water resources. In addition, the facility, where practical, shall be generally down gradient from a spring or well.

The facility shall be located as close to the source of mortality as practical, considering bio-security issues and the need to keep the facility out of sight of the general public.

The animal mortality facility shall be located outside the 100 year floodplain; however if site restrictions require location within a floodplain, they shall be protected from inundation or damage.

The location of the animal mortality facility shall be consistent with the overall site plan for the livestock or poultry operation.

Facilities shall not be located in the Zone I protection area of a public well. Location of a facility within a Zone II may require approval from the Town in accordance with its wellhead protection bylaws and health regulations.

Locate facilities so prevailing winds and landscape elements such as building arrangement, landforms, and vegetation minimize odors and protect the visual resource.

Facilities shall be located according to the distance requirements shown in Table 1.

**Table 1 – Minimum separation distance from areas of concern**

Area of Concern	Minimum Distance from Facility
Private Well	200 ft.
Non-potable on-farm well or spring	100 ft.
Public Surface Drinking Water Supply	200 ft.
Surface water or wetland	100 ft.

**Seepage Control.** Where seepage from mortality facilities will create a potential water quality problem and it is deemed necessary to reduce seepage, use AWMFH, Appendix 10D, for clay liner design criteria, or other acceptable liner technology.

#### **Composting.**

**General.** Design of facilities for composting animal mortality shall conform to conservation practice standard 317, Composting Facility, and the guidance in National Engineering Handbook Part 637, Chapter 2 – Composting (NEH 637.0211, Dead Animal Composting).

## **CONSIDERATIONS**

Major considerations in planning animal mortality management are:

- Available equipment at the operation,
- The management capabilities of the operator,
- The degree of pollution control required by state and local agencies,
- The economics of the available alternatives, and
- Effect on neighbors.

Consideration should be given to prevailing wind direction and neighbors when siting animal mortality disposal facilities. A minimum of 900 feet should separate the facility from the nearest neighboring residence, and the facility should be 200 feet from a well, spring, or water course.

Runoff from the livestock or poultry facility, or from outside areas should be diverted away from the animal mortality disposal facility.

Composting of poultry mortality will be hindered if the bird carcasses are allowed to freeze. Birds should be kept in a dry, non-freezing environment until added to the compost mix.

Facility sizes for composting large animal carcasses should reflect the longer compost periods required.

Vegetative screens and topography can be used to shield the animal disposal facility from public view, and to minimize visual impact.

State requirements for record keeping vary. Items such as burial site location, type and quantity of mortality, burial date, and other pertinent details should be noted at the time of burial.

Operators should maintain a list of current phone numbers for state and local officials to aid in notification if disease-related catastrophic mortality occurs.

Safety devices such as fencing, and warning signs may be necessary at certain sites.

Bio-security concerns should be addressed in all aspects of planning, installation, and operation and maintenance of an Animal Mortality Facility.

Ground disturbing activities such as excavation and site preparation for disposal facilities have the potential to affect significant cultural resources.

### **PLANS AND SPECIFICATIONS**

Plans and specifications for animal mortality facilities shall be in keeping with this standard and shall describe the requirements for applying this practice to achieve its intended purpose.

### **OPERATION AND MAINTENANCE**

An operation and maintenance plan applicable to this practice and any other associated conservation practices that includes, but is not limited to, the items listed below will be developed with the operator, and will become a part of the overall waste management system plan. The requirements in the individual operation and maintenance plan shall be consistent with the practice purposes, intended life, and design criteria. Safety considerations shall be prominently displayed in the plan.

The requirements for operating and maintaining the facility are to be discussed with the landowner or the responsible operator. Any hazards must be brought to the attention of the responsible person. Prior to construction, sufficient copies of the O&M plan shall be provided to the owner/operator, designer, and approving agencies. The owner shall sign the O&M plan to indicate an understanding of the requirements and a commitment to operate and maintain the area as specified.

Animal mortality facilities will normally be operated or used on a daily basis. At each operation or use, the facility shall be inspected to note any maintenance needs or indicators of operation problems.

### **REFERENCES**

**Agricultural Waste Management Field Handbook**, Part 651, National Engineering Handbook, USDA-NRCS, 1992.

**National Engineering Handbook**, Part 637, Environmental Engineering, Chapter 2, Composting, 2000.

**Composting Animal Mortalities**, Minnesota Department of Agriculture, July, 2006