



**ANIMAL CARCASS OFF-SITE DISPOSAL
for Animal Carcass Management
Related to a Disaster in
Franklin County, Massachusetts**



An Agricultural Emergency Response Planning Tool

Developed by

**FRANKLIN REGIONAL COUNCIL OF GOVERNMENTS
FRANKLIN COUNTY SOLID WASTE MANAGEMENT DISTRICT**

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This section of the *Comprehensive Response Plan for Animal Carcass Management Related to a Disaster in Franklin County, MA* is based on the National Animal Health Emergency Management System Guidelines (NAHEMS) *Operational Guidelines: Disposal*, April 2005.

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For more information about agricultural emergency response planning contact the Franklin Regional Council of Governments at 413-774-3167 or visit www.frcog.org. Information is also available through the Franklin County Solid Waste Management District at 413-772-2438 or at www.franklincountywastedistrict.org.

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1.0 INTRODUCTION

Off-site disposal of animal carcasses includes landfilling and incineration. Capacity currently exists in western Massachusetts at each type of facility. The decision of whether or not to transport animal carcasses off-site must be made by first assessing all of the disposal options, including completing the checklists for on-farm composting and on-farm burial.

Perhaps the most significant advantage to landfills for carcass disposal is the fact that the infrastructure already exists and the capacity (depending on the landfill) can be relatively large. Lined landfills pose little risk to the environment. In the event of an emergency or catastrophic event, time is a very important factor and landfills offer preexisting sites for disposal of carcasses with the necessary equipment, personnel, procedures, and containment systems.

While commercial incinerators can provide a disposal outlet, they are most effective for small animals. They are not effective for large animals, such as bovines or horses, or for feathered animals, such as poultry.

Note: Other disposal options exist but are either not recommended or not feasible as of the writing of this plan. The disposal option that is not recommended due to the level of resources needed and the resulting environmental degradation is on-farm incineration. This refers to air-curtain incinerators that require an enormous amount of dry wood, are labor intensive, and create significant air pollution.

Rendering is an acceptable disposal option for animal carcasses that have not degraded; however, there are currently no rendering facilities in the area. Another possible option is alkaline hydrolysis but there are no permitted facilities in the area and disposal of the end product is currently a problem.

2.0 SECURE DISPOSAL CAPACITY

It will be necessary to secure disposal capacity at a commercial landfill and/or commercial incinerator prior to collecting and transporting the animal carcasses. There are currently two facilities in western Massachusetts that have indicated a willingness to accept animal carcasses following a disaster: Waste Management landfills (413-534-8741) and Covanta Energy waste-to-energy incinerator (413-785-5120). **Note:** Commercial disposal facilities may be required to get a special waste permit from MassDEP prior to accepting animal carcasses.

When contacting these facilities make sure to identify all of the specifications for transporting, trucking, and tipping loads of animal carcasses. Find out weight

restrictions, delivery time(s), and anything else that might affect how this activity will need to be carried out at each farm or location.

3.0 TRANSPORTATION OF CARCASSES

The transportation of large numbers of deceased animals requires significant planning and preparation. Dead animals must be transported in covered, leak-proof containers. The route(s) for transport of animal carcasses should be determined ahead of time.

For local short transport, emergency managers might use municipally-owned vehicles. For transport out of Franklin County significant preparation will be required. All transportation personnel (public and private) will need briefing regarding what is expected of them, training in the use of PPE, in responding to public questions and the media, and being familiar with permits and other documents.

For long distance transport it is possible to use lined rolloff containers, lined dump trucks or other type truck that can “tip” its load. These types of vehicles are most commonly operated by private companies. Refer to the list of companies with water tight rolloff containers attached to this section. Refer to the section on Procurement and Record Keeping for equipment vendors on statewide contract. If the carcasses are being hauled to a landfill then the contractual arrangements with the disposal location must be arranged.

3.1 Procedures for retrieving, moving, and transporting carcasses¹

The procedures for collecting, moving, and transporting carcasses are relatively the same regardless of whether they are being disposed on-site or off-site. They will need to be carefully picked up and moved to either the on-site disposal location or placed into a leak-proof container for transportation off-site. In either situation, workers should wear PPE to protect from them from body fluids. This includes tyvek suit, boots, and synthetic impermeable gloves. Safety glasses should be considered depending on the state of the carcasses and whether liquid is likely to become airborne. They should all have direct communication with the Incident Command Center in case a problem arises. They should also be directed to seek mental health counseling based on some of the images they are likely to witness.

3.1.1 Equipment and Supplies

The following list of equipment should be considered depending on the specific situation. It may be necessary to contract with private companies for supplies and/or equipment. Be certain to comply with FEMA contracting requirements in

¹ Adapted from the Missouri Department of Agriculture *Standard Operating Guide #002* p13 ff.

order to be reimbursed should this incident be declared a state disaster. See the section on Procurement and Record Keeping.

➤ Heavy machinery:

- Skid Steer with attachments
- Front-end loaders
- Dump trucks
- Roll-offs
- Cranes
- Chains, hooks, shovels

➤ Supplies:

- 6 mil plastic sheeting, poly bags with a zipper (available from Waste Management -<http://www.wmupstream.com/documents/Bio-zipfinal.pdf>)
- Absorbent material – sawdust, wood shavings, hay, straw
- Personnel Protective Equipment

➤ Lighting: If the situation warrants working after daylight then lighting should be provided. With any lighting system, it will be necessary to provide electricity, either with batteries, generators or drop service from power lines. The use of a drop service will require coordination with the local power company.

➤ Communications: Personnel at each site where carcasses are being collected, moved and transported need to have a means of communication with the Incident Command Post.

3.1.2 Methodology

If the town does not have adequate equipment then order the necessary containers. Rolloff containers are usually 10, 20, 30, or 40 cubic yards. Rolloff containers will most likely need to be sealed to prevent leakage. Dump trucks can also be used. **Note:** Large transfer trailers are not ideal because the weight of the carcasses will not allow the load to tip out of the trailer easily or without ripping the liner. Make sure a contract has been prepared for the trucking activities.

1. Seal all rolloff containers and dump trucks around the gate. Do not use any container that has holes or is rusty and thin in places.
2. Double-line with 6 mil plastic sheeting or poly bags with a zipper (bio-zip from Waste Management). If using plastic sheeting make sure to leave enough at the sides to seal the top after loading is completed. Dimensions are as follows: 10 cubic yard is 32'x 44'; 20 cubic yard is 34'x 76'; 30 cubic yard is 40'x 80' and 40 cubic yard is 50'x 100'. Make sure two people work together to do the lining.

3. Load the container with 1 foot of absorbent material such as sawdust, wood shavings, hay or straw.
4. Retrieve animal mortalities on sites where it has been decided that they can not be managed. Some carcasses will bloat. Use great care, handle the carcass as little as possible. Load them carefully into the container both to avoid tearing the liner and to avoid puncturing the body cavity of the carcasses, thus keeping the release of body fluids to a minimum.
5. In loading a vehicle, ample space must be left for the expansion of carcasses. At least 1-2' of space (depending on the temperature and the distance to be traveled) should be left around the carcasses.
6. After loading, cover carcasses with plastic sheet which should be attached to sides and top of container to prevent leaking or zip the poly bag.

4.0 DOCUMENTATION

It is imperative to use appropriate documentation for all activities that require labor, equipment, supplies, and trucking services. The EMD should have some level of assurance that any containers of carcasses hauled off site have been properly loaded (not under filled or over filled) and are delivered to the contracted end disposal facility. Logs and written documentation will be required for reimbursement from FEMA. See the Procurement and Record Keeping section for copies of FEMA forms.

ATTACHMENTS

- ❖ Solid Waste/ Trucking Companies With Water Tight Roll-Offs

**SOLID WASTE/ TRUCKING COMPANIES WITH WATER TIGHT
ROLL-OFFS**

New England Disposal Technologies
83 Gilmore Dr
Sutton, MA 01590
800-698-1865
508-234-4440

BFI/Allied Waste
845 Burnett Rd
Chicopee, MA 01020
413-592-9411
800-367-7778

New England Waste
28 Moylan Ave
Agawam MA 01001
413-878-1740

Cyn Environmental
11B Old Windsor Rd
Bloomfield CT 06002
860-466-8500

Waste Management
600 New Ludlow Rd
South Hadley, MA 01075
800-427-1661